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Three Essays on Corporate Governance and Corporate Social Responsibility

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THREE ESSAYS ON CORPORATE GOVERNANCE AND CORPORATE SOCIAL RESPONSIBILITY

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DEDICATION

I dedicate this dissertation to my son, Zekun Bruce Chen, and my husband, Ruiyuan Chen, for their companionship through this journey.

I also dedicate this dissertation to my parents, Shufen He and Hui Wang, and parents-in-law, Guofen Sun and Junshan Chen, who have always loved and supported me.

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ABSTRACT

In recent years, corporate social responsibility (CSR) activities, which are firms actions that go above and beyond the interests of the firm to further the social good, have become common practice. While extant literature on CSR largely investigates the consequences of CSR activities, only a few studies identify the determinants of CSR. This dissertation extends a growing literature on the determinants of CSR by exploring the impact of corporate governance on CSR activities in three related essays.

The first essay investigates the impact of family control on CSR performance. Using newly collected data on the ultimate ownership structure of publicly traded firms in nine East Asian economies, we find that family control is associated with lower CSR performance, consistent with the expropriation hypothesis of family control. The negative relationship between family control and CSR is robust to alternative CSR measures, alternative estimation methods, and a different definition of family firms, as well as to endogeneity tests, subsample tests, comparisons with other large shareholders, and comparisons with family firms from other countries. In additional analyses, we find that CSR underperformance is more pronounced in family firms with greater agency problems and in countries with weaker institutions. These findings contribute to understanding the determinants of CSR and highlight the importance of corporate governance and the institutional environment in improving CSR performance of family-controlled firms.

The second essay assesses the CSR performance of newly privatized firms (NPFs) to understand the social impact of privatization. Using data of NPFs from 41 countries over

the 2002-2010 period, we find strong evidence that NPFs have better CSR performance than other publicly listed firms. Controlling for firm-level and country-level variables, state ownership has a negative impact on CSR performance, while foreign and employee ownership have positive impacts on CSR performance in NPFs. We also find that country-level institutions play a moderating role in the relationship between ownership structure and CSR performance in NPFs. In additional analyses, we find that CSR performance helps to improve the financial performance of NPFs. Specifically, NPFs with residual state ownership and better CSR performance exhibit higher valuation and lower equity financing costs.

The third essay investigates the dynamics of cross-listing and CSR. Using a sample of 11,594 firm-year observations from 54 countries over the period 2002-2011, we find that cross-listed firms have better CSR performance than non-cross-listed domestic firms. This result is robust to endogeneity and different types of cross-listing. We also find that CSR increases (decreases) significantly after cross-listing in (delisting from) the U.S. market. The positive impact of cross-listing on CSR performance is stronger for firms from countries with weaker institutions and for firms in industries with high litigation risk. Finally, we find that, through better CSR performance, cross-listed firms exhibit higher valuation.

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CHAPTER 1

INTRODUCTION

Defined as corporate social or environmental behavior that goes beyond the legal or regulatory requirements of the relevant markets or economies (Kitzmueller and Shimshack, 2012), corporate social responsibility (CSR) has inevitably become important and mainstream business practice nowadays and has raised a substantial interest in academic circles as well. From the practitioner point of view, a recent survey (2014) by a consulting firm EPG shows that U.S. and UK companies in the Fortune Global 500 spent over $15.2 billion a year on CSR. In the same vein, 93 percent of the world's largest 250 companies now report their CSR investments, either in standalone reports or as part of their annual financial reports (KPMG, 2013). From the academic point of view, the impact of social and environmental practice on firm value is still inconclusive, although most evidence points to a positive relation (see Orlitzky et al., 2003; Margolis et al., 2009 for meta-analyses).

While extant literature on CSR largely investigates the consequences of CSR activities, only a few studies identify the determinants of CSR. This dissertation extends a growing literature on the determinants of CSR by exploring the impact of corporate governance on CSR activities in three related essays. The first and second essays examine the CSR performance from the internal corporate governance aspects. Specifically, the first one investigates how family control influences CSR performance. The second one assesses how ownership change in privatized firms impacts CSR performance. The third essay, from

external corporate governance aspects, looks at the CSR performance of foreign firms cross-listed in U.S. markets and examines how cross-listing changes the CSR performance.

The first essay in Chapter 2 investigates the impact of family control on CSR performance. A large ownership stake may create agency conflicts between controlling families and minority shareholders if controlling families can use their voting rights to divert firm resources from CSR projects to other projects that benefit themselves. This expropriation view suggests that family firms have lower CSR performance than non-family firms. However, family firms have greater reputation concerns than non-family firms (Dyer and Whetten, 2006; Zellweger et al., 2011), which may lead family firms to invest more in CSR activities. Family firms' longer horizon (Miller and Le Breton-Miller, 2005) may further lead family firms to invest more in CSR to help support long-term relationships with stakeholders. The reputation/long-term horizon view thus suggests that family firms have higher CSR performance than non-family firms.

In this essay, we find support for the expropriation view of family firms. In particular, we find a significantly negative impact of family control on CSR after controlling for firm, industry, and country characteristics. This negative relationship is robust to separately examining the components of our primary CSR measure, as well as to endogeneity tests, sample composition tests, alternative estimation methods, alternative definition of family firms, comparisons with other large shareholders, and comparisons with family firms from other countries. To shed further light on our main finding, we first examine whether the CSR underperformance of family firms is more pronounced in firms with greater agency problems as indicated by proxies for firms' agency costs, ownership structure, and board structure. The results show that family firms underperform on CSR

when they have greater agency problems, when monitoring by outside shareholders is less effective, or when monitoring by board members is less efficient. These findings are consistent with the expropriation view and support our main results. Next, we investigate whether country-level institutions affect families' incentives to invest in CSR. We find that family firms are less likely to invest in CSR in countries with low freedom of the press, more political connections, and weaker investor protection. Thus, while family firms have more incentives to augment their reputation through CSR activities, a weak institutional environment may reduce these incentives. Differences in institutional environment might also explain why family firms perform differently on CSR in the U.S. and East Asia.

This essay contributes to the literature on the determinants of CSR, the literature on the impact of family control, and the literature on the impact of country-level institutions. With respect to the first line of research, we highlight the importance of understanding ownership structure when studying the determinants of CSR. We further show that in East Asia, only the family ownership structure has a significant impact on CSR. With respect to the second line of research, we confirm prior evidence on the expropriation effects of family control in East Asia and suggest that lower CSR performance could be one consequence of expropriation. With respect to the third line of research, we show that country-level institutions may alter controlling families' incentives to invest in CSR.

The second essay, in Chapter 3, investigates the impact of privatization on CSR performance. The privatization setting is interesting in that it allows examining CSR adoption/ change around a change in the objective function of the firm rather than resulting from global or domestic forces as is often done in the literature. In addition, it allows exploiting the particular post divestiture ownership structure to test the link between

government ownership, foreign and employee ownership on CSR performance. Using a large sample of 10,502 firm-year observations from 41 countries over the period 2002-2010, we find that CSR is significantly higher for NPFs in comparison to other matching publicly listed firms. This finding is robust to addressing endogeneity through propensity score matching, and confirms our main hypothesis that NPFs either adopt CSR as an investment strategy to increase competitiveness with privately-owned companies, or are coerced to do so by the government that transfers the cost of CSR to private owners. To disentangle these two explanations, we compare partially and fully privatized firms and observe that partially privatized firms have significantly higher CSR performance, which supports the conjecture that CSR activities are likely to be forced upon the firms by the government, for reputation gains and because CSR costs can be transferred to the new owners.

In a second step, we examine the impact of ownership structure and country-level institutions on CSR performance of NPFs. We find that state ownership (alternatively captured by state control or political connections) is negatively associated with CSR performance in NPFs, while foreign ownership and employee ownership are positively associated with CSR performance. Country-level institutions play a moderating role in the relationship between ownership structure and CSR performance. Finally, we investigate the firm-level outcomes of CSR activities in NPFs. We find that CSR performance helps to mitigate the negative impact of state ownership on firm financial performance in NPFs. More specifically, better CSR performance in NPFs with state residual ownership yields higher firm value and lower equity financing costs.

This essay contributes to the privatization literature by examining the social impact of privatization. To our knowledge, this is the first study to assess the social responsibility of NPFs. SOEs do not typically engage in the additional costs of CSR, and therefore the reform could be used to transfer the cost of CSR to private investors. Or, alternatively, CSR awareness becomes part of corporate decision-making of NPFs since they are under private ownership and seek profit and value maximization. We find support for this hypothesis by showing that NPFs have better performance on social dimensions. Also, this essay contributes to the literature on determinants of CSR. Specifically, we link this corporate decision to a macroeconomic policy that is politically driven. We show that CSR is dependent on political will and therefore government support and political institutions are important determinants of CSR activities. Finally, our essay is related to corporate finance literature because it examines the impact of CSR on firm financial performance in NPFs. We find that better CSR performance helps to mitigate the adverse effect of state ownership on firm performance.

The third essay, in Chapter 4, investigates the impact of cross-listing on firms' corporate social responsibility (CSR) performance. Using 11,594 firm-year observations from 54 economies over the period 2002-2011, this essay studies the dynamics of cross-listing and CSR. Consistent with the positive view of CSR, we find that cross-listing is positively associated with CSR performance. This positive relation holds for endogeneity, both components of CSR performance, namely, environmental performance and social performance, and for all four ADR program types. To further mitigate the self-selection concern, we look into the change of CSR performance within cross-listed firms and find

that CSR increases (decreases) significantly after cross-listing in (delisting from) the U.S. market.

To deepen our analysis, we next examine several factors likely to condition the relation between cross-listing and CSR. We first investigate the effect of home country institutions on the CSR performance of cross-listed firms. We find that the positive impact of cross-listing on CSR performance is larger for firms from countries with weaker institutions. This result is consistent with the bonding theory of cross-listing, holding that firms from countries with weak institutions benefit more from cross-listing in the U.S. (Reese and Weisbach, 2002; Doidge, Karolyi, and Stulz, 2004). We also investigate the effect of cross-listing in venues other than the U.S. and find no significant impact of these cross-listings on CSR performance, suggesting that U.S. markets subject cross-listed firms to a relatively stronger regulatory and monitoring environment (Doidge, Karolyi, and Stulz, 2009). To directly test the litigation risk explanation, we investigate the CSR performance of cross-listed foreign firms that operate in industries with higher litigation risk. We find that cross-listed firms in high litigation risk industries are more likely to invest in CSR, in line with our argument that cross-listed firms may use CSR to reduce their exposure to litigation risk. Finally, we find that cross-listed firms with better CSR performance are valued more by investors.

This essay contributes to different strands of literatures on cross-listing, CSR, and the impact of country-level institutions. With respect to the first line of research, we provide the first study to our knowledge to assess the social responsibility of cross-listed firms. We find that cross-listed firms have better CSR performance than their peers. We thus add to this line of literature by showing that not only financial performance but also social

performance can be improved by cross-listing. With respect to the second line of research, we provide support for the positive view of CSR. We show that improved corporate governance increases CSR performance, and that investors value CSR investments in cross-listed firms. With respect to the third line of research, we show that changes in the institutional environment may also influence firms' CSR performance.

Chapter 5 summarizes the core findings of Chapter 2, 3, and 4 and discusses the contributions and implications of these results.

CHAPTER 2

FAMILY CONTROL AND CORPORATE SOCIAL RESPONSIBILITY

2.1. Introduction

In recent years, corporate social responsibility (CSR) activities, which are firm actions that go above and beyond the interests of the firm to further the social good (McWilliams and Siegel, 2001), have become common practice. For example, a 2013 survey by KPMG reveals that 93% of Fortune Global 250 firms report investment in CSR activities, either in standalone reports or as part of their annual financial reports. Extant literature on CSR largely investigates the consequences of CSR activities, documenting the effect of CSR on firm value (e.g., Fatemi, Fooladi, and Tehranian, 2015), abnormal stock returns (e.g., Dimson, Karakas, and Li, 2013), idiosyncratic risk (e.g., Lee and Faff, 2009), financial distress (e.g., Goss, 2009), the cost of capital (e.g., El Ghoul, Guedhami, Kwok, and Mishra, 2011), access to finance (e.g., Cheng, Ioannou, and Serafeim, 2014), and merger performance (Deng, Kang, and Low, 2013). Prior studies identify only a few determinants of CSR, however, including regulations (Dawkins and Lewis, 2003) and national institutions (Ioannou and Serafeim, 2012) at the country level, and board structure (Johnson and Greening, 1999), CEO characteristics (Waldman, Siegel, and Javidan, 2006), and political affiliation (Di Giuli and Kostovetsky, 2014) at the firm level. In this essay we investigate the extent to which ownership structure and, in particular, family control drives

CSR performance and the role of corporate governance and country-level institutions in influencing families' incentives to invest in CSR[1].

According to agency theory, family-controlled firms should have fewer agency conflicts between shareholders and managers than non-family-controlled firms (Jensen and Meckling, 1976), as the large ownership stakes of controlling families imply strong monitoring of management (Anderson and Reeb, 2003a). But family control can create agency problems between controlling shareholders and minority shareholders, because controlling shareholders could expropriate minority shareholders to pursue private benefits (e.g., DeAngelo and DeAngelo, 2000; Bertrand, Mehta, and Mullainathan, 2002; Bae, Kang, and Kim, 2002). In the context of CSR, controlling families can use their dominant voting rights to divert resources from CSR activities to other projects. The expropriation view thus suggests that CSR performance is lower for family firms than non-family firms.

However, family firms' reputation concerns and long-term horizons suggest higher CSR performance for family firms. Family firms have greater reputation concerns than non-family firms because reputation affects not only firm performance but also the family's name (Dyer and Whetten, 2006; Zellweger, Sieger, and Halter, 2011), and a favorable family name is an important socioemotional goal of family firms (Berrone et al., 2010; Deephouse and Jaskiewicz, 2013). Thus, to increase the firm's and, in turn, the family's reputation, family firms may engage more in CSR activities. Also, because the

[1] While an abundant literature examines the impact of family control on firms' investment decisions (Anderson, Duru, and Reeb, 2012; Masulis, Pham, and Zein, 2011), investment-cash flow sensitivity (Pindado, Requejo, and Torre, 2011; Cucculelli and Micucci, 2008), cost of equity capital (Attig, Guedhami, and Mishra, 2008), cost of debt (Anderson, Mansi, Reeb, 2003), corporate disclosure (Ali, Chen, and Radhakrishnan, 2007), earnings quality (Wang, 2006), firm productivity (Barth, Gulbrandsen, and Schønea, 2005), firm leverage and corporate diversification (Anderson and Reeb, 2003b), and corporate performance (Andres, 2008; Anderson and Reeb, 2003a; Villalonga and Amit, 2006; Miller et al., 2007; among others), to our knowledge there is little evidence on the impact of family control on CSR.

concentrated ownership stake of family firms induces a long-term horizon (Stein, 1988), family firms are more likely to invest in long-term relationships with other stakeholders (Miller and Le Breton-Miller, 2005) through greater participation in CSR activities.

Because expropriation effects and reputation/horizon effects may operate on family firms' decisions at the same time, the net effect on CSR performance is an empirical question. Prior studies using U.S. data find a positive impact of family control on CSR performance (Berrone et al., 2010; Block and Wagner, 2014; Dyer and Whetten, 2006), in line with the reputation/horizon view. However, it is not clear that the positive relation between family control and CSR should generalize outside the U.S., where institutions are less protective of minority shareholders and hence the incentives for expropriation are stronger[2].

To shed light on this question, in this study we empirically examine the effect of family ownership on CSR performance in East Asia, which is an ideal setting for this analysis for three reasons. First, family control is the dominant ownership form in East Asia (Claessens, Djankov, and Lang, 2000), with nearly half of publicly traded firms controlled by families in 2008 (Carney and Child, 2013). Second, prior studies of the effect of family control on financial performance find opposite results for the U.S. and East Asia (Anderson and Reeb, 2003a; Claessens et al., 2002; Villalonga and Amit, 2006). Third, controlling families in East Asian family firms typically have excess control through pyramidal ownership structures or cross-holdings (Claessens et al., 2002), and thus have greater incentive and ability to expropriate minority shareholders.

[2] Anderson and Reeb (2003a), and Villalonga and Amit (2006) both find that family firms in U.S.outperform than nonfamily firms, but Claessens et al.(2002) use data in eight East Asian economies and find a negative impact of family control on firm value.

We obtain information on firm ownership from Carney and Child's (2013) newly collected data set on the ultimate ownership structure of publicly traded firms in nine East Asian economies: Hong Kong, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, and Thailand. Information on firms' CSR performance comes from ASSET4 data compiled by Thomson Reuters. The resulting sample comprises 1,719 firm-year observations for nine East Asian economies between 2002 and 2011.

Using the above sample, we first explore whether family-controlled firms have better CSR performance than other firms. To do so we construct three proxies for family control, namely, *FAM_DUM*, *FAM_CONT* and *FAM_MAN*. We find that family firms have significantly lower CSR performance than non-family firms, CSR decreases with the extent of family control, and CSR is significantly lower for family firms in which a member of the controlling family is also the CEO, Chairman of the Board, or Vice Chairman of the Board. These results support the expropriation hypothesis. When we separately examine the two components of CSR performance, namely, environmental performance and social performance, we find that the negative impact of family control continues to hold for both components.

One can argue that the lower CSR performance of family firms is due to some fundamental difference between family and non-family firms. Further, it is possible that unobserved determinants of CSR performance explain the lower CSR performance of family firms. To address these endogeneity concerns, we employ two-stage least square (2SLS) approach, Heckman selection estimation procedure, and propensity score matching (PSM) procedure. The results consistently support our main finding that family firms are associated with lower CSR performance. Another concern is that the lower CSR

performance of family-controlled firms is driven by a specific group of firms or a certain period. To address this possibility we re-run our analysis using weighted least squares, giving countries and years with more observations less weight, we exclude financial firms, and we separately examine the pre-crisis, crisis, and post-crisis periods. Our main results continue to hold. Moreover, our results are robust to the use of alternative estimation methods, alternative definition of family firms, comparisons with other large shareholders, and comparisons with family firms from other countries.

To further evaluate the expropriation hypothesis, we examine whether the CSR underperformance of family firms is more pronounced in firms that have greater potential agency problems, as indicated by proxies for firms' agency costs, ownership structure, and board structure. The results show that CSR performance is lower for family firms that have greater agency costs, less monitoring from outside shareholders, and less efficient boards. We also investigate how country-level institutions affect families' incentives to invest in CSR. We find that family firms are less likely to invest in CSR in countries with lower freedom of the press, more political connections, and weaker investor protection. Thus, while family firms have more incentives to enhance their reputation through investment in CSR activities, a weak institutional environment may reduce these incentives. Different institutional environments can also explain why family firms' CSR performance differs between the U.S. and East Asia.

This essay contributes to the literature on the determinants of CSR by showing how CSR performance is influenced by ownership type. Previous studies on the relation between ownership structure and CSR generally focus on a single country and find mixed results across settings (e.g., Bartkus, Morris, and Seifert, 2002; Ghazali, 2007; Barnea and

Rubin, 2010; Oh, Chang, and Martynov, 2011; Berrone et al., 2010; Block and Wagner, 2014; Dyer and Whetten, 2006). Our study, based on Carney and Child's (2013) newly collected data on the ultimate ownership structure of publicly traded firms in nine East Asian economies, provides cross-country evidence on the relation between family ownership and CSR performance. Using a cross-country setting, we are better able to identify the influence of family control on CSR and understand the role of corporate governance and the institutional environment in improving CSR performance of family-controlled firms, hence offering an explanation for the mixed findings in previous literature.

This essay also contributes to the literature on family firms by providing evidence on how family firms' behavior affects CSR performance. Dyer and Whetten (2006), Berrone et al. (2010), and Block and Wagner (2014) document a positive impact of family control on CSR performance in the U.S., while we find a negative impact using data from nine East Asia economies. This result suggests that controlling families tend to expropriate minority shareholders in environments with greater agency conflicts and weaker institutions.

Finally, this essay contributes to a large literature on the role of country-level institutions. Previous studies document how country-level institutions impact variation in CSR performance across countries (e.g., Jamali, Zanhour, and Keshishian, 2009; Jackson and Apostolakou, 2010; Ioannou and Serafeim, 2012). We extend this literature by showing that country-level institutions affect the relationship between family control and CSR performance.

The remainder of the essay is organized as follows. Section 2 reviews prior literature and develops our hypotheses. Section 3 discusses our data and variables, and provides descriptive statistics. Section 4 presents results of univariate tests, regression analysis, and robustness tests. Section 5 presents results of additional analyses. Finally, Section 6 concludes the essay.

2.2. Family Control and Corporate Social Responsibility

2.2.1. The Expropriation View

According to agency theory, family-controlled firms should have fewer agency conflicts between shareholders and managers than non-family firms (Jensen and Meckling, 1976), as the large ownership stakes of controlling families imply greater incentives to monitor managers (Anderson and Reeb, 2003a). However, family control can lead to agency problems between controlling shareholders and minority shareholders, as controlling shareholders have strong incentives to pursue private benefits by expropriating minority shareholders: unlike other types of large shareholders (e.g., the state, a widely held firm, or a financial institution), controlling families usually hold large ownership stakes in a single firm for several generations and a family member often serves as CEO or Chairman of the Board (Claessens et al., 2000; Faccio and Lang, 2002).

A large body of literature documents expropriation of minority shareholders in family firms. For instance, DeAngelo and DeAngelo (2000) report that family firms' preference for dividends leads to lower investment in physical capital and Anderson et al. (2012) show that family firms invest less in R&D. Further, Bertrand et al. (2002) and Bae et al. (2002) find direct evidence of tunneling in Indian family business groups and Korean

family-controlled pyramids (chaebols), respectively. These behaviors lead to lower returns for family firms. Indeed, empirical studies show that family firms underperform non-family firms in East Asia (Claessens et al., 2002), Canada (Morck, Stangeland, and Yeung, 2000), and Sweden (Cronqvist and Nilsson, 2003), among others, and using a sample of 35 countries Lins, Volpin, and Wagner (2013) find that family firms underperformed during the 2008-2009 financial crisis.

With regard to CSR performance, prior work suggests that controlling shareholders are associated with lower CSR performance. For example, Bartkus et al. (2002) find that blockholders limit corporate philanthropy for a sample of 66 U.S. companies, and Ghazali (2007) shows that Malaysian companies with a high level of director ownership disclose significantly less CSR information. Using a CSR rating data set that classifies the largest 3,000 U.S. corporations as socially responsible or irresponsible, Barnea and Rubin (2010) find that on average insider ownership is negatively related to a firm's CSR rating. Similarly, Oh et al. (2011) find that managerial ownership is negatively associated with a firm's CSR rating in Korean firms, and Dam and Scholtens (2013) find that ownership concentration is significantly negatively related to CSR performance in a sample of 700 European firms.

In sum, the above discussion suggests that controlling families have more incentives to divert firm resources, including investment in CSR activities, by expropriating minority shareholders, which leads to underperformance of family firms. The expropriation view thus suggests that family firms realize lower CSR performance than non-family firms. This leads to our first hypothesis:

Hypothesis 1*: CSR performance is lower for family firms than non-family firms.*

2.2.2. The Reputation and Long-Term Horizon View

While the expropriation view suggests that controlling families have incentives to divert firm resources and thereby invest less in CSR, the reputation concerns and long-term horizon of family-controlled firms suggest an alternative perspective. Firms invest in CSR activities to enhance their reputation with stakeholders (Albert and Whetten, 1985; Whetten and Mackey, 2002). Reputation is particularly important to family firms, because it affects not only firm performance but also the family's name (Dyer and Whetten, 2006; Zellweger et al., 2011). Family owners and managers who view their firm as an extension of themselves may fear that a poor firm reputation will hurt their family and themselves (Ward, 1987; Kets de Vries, 1994; Post, 1993; Dyer and Whetten, 2006). Further, because controlling families are often interested in passing the firm on to the next generation (Gómez-Mejía et al., 2007), in addition to financial goals family firms may pursue a number of nonfinancial goals (Zellweger et al., 2013), of which a favorable reputation is an important socioemotional goal (Schulze, Lubatkin, and Dino, 2003; Berrone et al., 2010; Deephouse and Jaskiewicz, 2013), This argument thus suggests that family firms are more likely than other firms to invest in CSR to increase the firm's and in turn the family's reputation.

Family firms also enjoy a longer horizon than non-family firms. While managers of widely held firms have incentives to pursue short-term performance at the expense of long-run value to enhance their reputation in the labor market (Narayanan, 1985), family-controlled firms' concentrated ownership increases incentives to monitor management, which decreases managerial myopia (Stein, 1988). Further, James (1999) suggests that the long-term horizon of family firms results in more efficient investment, as it allows firms to

maximize wealth over the long run and invest in long-term relationships with stakeholders (Miller and Le Breton-Miller, 2005). This argument suggests that family firms are more likely than other firms to invest in CSR to maximize long-term value (Jensen, 2002; Bénabou and Tirole, 2010). In line with this perspective, using U.S. data Dyer and Whetten (2006) find that family firms are more socially responsible than non-family firms, Berrone et al. (2010) find that family-controlled firms have better environmental performance than non-family firms, and Block and Wagner (2014) show that while family ownership is negatively associated with community-related CSR performance, it is positively associated with diversity-, employee-, environment-, and product-related aspects of CSR.

In sum, the above discussion suggests that the reputation concerns and longer horizon of family firms lead them to invest more in CSR than non-family firms. This view thus implies higher CSR performance for family firms, which leads to our second hypothesis:

Hypothesis 2: *CSR performance is higher for family firms than non-family firms.*

2.3. Data, Variables, and Summary Statistics

2.3.1. Sample

To construct our sample we begin by collecting data from several sources (see Appendix A). We obtain ownership data for publicly traded firms in nine East Asian economies (Hong Kong, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, and Thailand) from Carney and Child (2013). This data set identifies firms' ultimate controlling shareholders as well as their ultimate cash flow (ownership) and voting (control) rights as of 2008, and also provides information on the presence of multiple large

shareholders (up to five) and their control stakes. We obtain CSR data from Thomson Reuters' ASSET4, which provides environmental, social, and governance information on over 3,400 firms worldwide as of 2002. This information is collected from publicly available sources (e.g., annual reports, NGO websites, CSR reports) and updated biweekly. Finally, we obtain firm-level financial data from the Compustat Global database.

Next, we hand-match the ownership dataset with the financial data. We then merge the resulting dataset with the CSR data. After omitting firms with insufficient financial data to construct the regression variables, the final sample comprises 1,719 observations from nine economies over the 2002-2011 period.

2.3.1. Variables

2.3.1.1. CSR

Following Ioannou and Serafeim (2012), we construct our primary measure of a firm's CSR performance, CSR, as the average of the firm's environmental and social performance scores. A firm's environmental performance score captures the company's impact on living and non-living natural systems, including the air, land, and water, and is based on the firm's energy use, CO2 emissions, waste recycling, etc. A firm's social performance score measures the company's capacity to generate trust and loyalty with its workforce, customers, and society and is based on factors such as employee turnover, injury rate, training hours, percentage of female employees, and amount donated to charitable organizations. In robustness tests we also examine a firm's environmental performance (*ENVIRONMENT*) and social performance (*SOCIAL*) separately.

2.3.1.2. Family Control

To capture family control, we construct three proxies: *FAM_DUM*, *FAM_CONT*, and *FAM_MAN*. Following Anderson and Reeb (2003a), *FAM_DUM* is a dummy variable equal to 1 if the largest shareholder is a family, 0 otherwise. Carney and Child (2013) identify the largest shareholder at the 10% and 20% thresholds. We use the 10% threshold in our main analysis and the 20% threshold in robustness tests. *FAM_CONT*, which also comes from Anderson and Reeb (2003a), is the percentage of voting rights held by the controlling family shareholder. In addition to these two proxies, we construct *FAM_MAN*, which is a dummy variable equal to 1 if the controlling family is also the CEO, Chairman of the Board, or Vice Chairman of the Board.

It should be noted that our results are not likely to be influenced by the use of one-year cross-sectional observations on family firms, as firm ownership structure is "sticky". In the context of East Asia, Carney and Child (2013) map ownership changes of the largest corporations and find that family control remains the most common form of ownership. They conclude that firm ownership type is likely to change only where major political changes occur. For the purpose of our study, we do not observe any major political or institutional change over our sample period. We therefore expect cross-sectional variation in our three family control variables to reflect heterogeneity in CSR policy across our sample firms.

2.3.1.3. Firm-level Control Variables

We include a number of firm-level variables to control for various factors that may affect CSR performance. In particular, we control for: *SIZE*, the natural logarithm of total assets; *AGE*, firm age, measured as the fiscal year minus the year of establishment; *MTB*, the market-to- book ratio; *LEV*, the ratio of total debt to total assets; *ROA*, return on assets,

measured as the ratio of net income before extraordinary items to total assets; and *RDS*, the ratio of research and development expenses to total sales. To mitigate the impact of outliers, we winsorize all firm-level variables at the 1% and 99% levels. In addition to these firm-level variables, we control for country, industry, and year effects in all of our regressions.

2.3.2. Summary Statistics

Table 2.1 summarizes our sample composition by industry, country, and year. The full sample comprises 1,719 observations representing 335 unique firms over the 2002-2011 period. More than one-fourth of the sample firms are family firms. Using the Fama–French (1997) 12-industry classification, family firms are diversified across industries, with Consumer Nondurables having the highest percentage of family firms (55%) and Utilities having the lowest (15.79%). Among the nine East Asian economies, family firms dominate in the Philippines (83.33%) and South Korea (57.45%), whereas only 10.48% and 15.79% of firms are family firms in Japan and Taiwan, respectively. The percentage of family firms is relatively stable over time starting in 2004; it is lower in 2002 and 2003.

Table 2.2 presents descriptive statistics for and correlations between key regression variables. In Panel A, we see that CSR ranges between 97.570 and 6.690, with an average of 56.044 and a standard deviation of 29.614. These results suggest that there is considerable variation in CSR performance. The mean of *FAM_DUM* is 0.234, which implies that 23.4% of observations correspond to family firms. The mean of FAM_MAN is 0.166, which suggests that 16.6% of observations correspond to family firms in which a family member is also the CEO, Chairman of the Board, or Vice Chairman of the Board. In Panel B, we find that consistent with Hypothesis 2, all three measures of family control

(*FAM_DUM*, *FAM_CONT*, and *FAM_MAN*) are negatively related to our proxies for CSR performance (*CSR*, *ENVIRONMENT*, and *SOCIAL*), implying that family-controlled firms tend to have lower CSR performance. The correlation coefficients between key variables of interest are low, indicating that multicollinearity is not likely to affect our regression results.

2.4. Empirical Results

2.4.1. Univariate Analysis

In Table 2.3, we conduct univariate tests of differences in means between family and non-family firms. The average CSR is 45.475 for family firms, compared to 59.280 for non-family firms, with the difference significant at the 1% level. Similarly, family firms have significantly lower ENVIRONMENT and SOCIAL than non-family firms. These results confirm the preliminary evidence in Table 2.2 that family firms tend to have lower CSR performance. However, this analysis does not control for other variables that could affect CSR. We thus conduct multivariate analysis next.

2.4.2. Multivariate Analysis

To shed further light on the impact of family control on CSR performance, we run the following specification:

$$CSR = a_0 + a_1 FAMILY + a_2 Controls + a_3 Fixed\ effects + e, \quad (1)$$

where CSR is one of the three CSR proxies (*CSR*, *ENVIRONMENT*, *SOCIAL*), *FAMILY* is one of the three measures of family control (*FAM_DUM*, *FAM_CONT*, *FAM_MAN*), Controls is a vector that contains the firm-specific control variables (*SIZE*, *AGE, MTB, LEV, ROA, RDS*), and Fixed effects is a vector that includes the year, industry,

and country fixed effects. In all regressions, we follow Petersen (2009) and cluster standard errors by firm and year.

The regression results for specification (1) are reported in Tables 4 and 5. In Table 2.4, the dependent variable is *CSR*, which is the average of a firm's environmental performance and social performance scores. In Column 1, we report results based on *FAM_DUM*, a dummy variable equal to 1 if the largest shareholder is a family. The estimated coefficient on *FAM_DUM* is negative and significant at the 1% level, suggesting that in line with the expropriation view (Hypothesis 2), family-controlled firms underperform on CSR compared with non-family firms. This result is also economically significant: the coefficient on *FAM_DUM* is -9.138, which together with the mean *CSR* of 56.044 (Table 2.2, Panel A) implies that on average CSR performance is 16.3% lower (from 56.044 to 46.906) for family firms than non-family firms. Turning to the control variables, the results show that firm size, age, and return on assets are positively associated with CSR performance.

In Column 2, we report results based on *FAM_CONT*, which captures the ultimate control rights of family firms. We document a negative and significant coefficient on *FAM_CONT*. This result complements the finding in Column 1 by showing that an increase in controlling families' control rights is associated with a decrease in CSR performance. In terms of economic significance, increasing family control by one standard deviation decreases CSR performance by 7.3% (from 56.044 to 51.967).

In Column 3 we employ our third measure of family control, *FAM_MAN*, which is a dummy variable equal to 1 if a controlling family member is the CEO, Chairman of the Board, or Vice Chairman of the Board. The impact of *FAM_MAN* on *CSR* is again negative

and significant. Economically, a manager that is a member of the controlling family is associated with 15.4% lower CSR performance (from 56.044 to 47.398). Thus, while a family manager may imply lower shareholder-manager conflicts (Anderson and Reeb, 2003a; Villalonga and Amit, 2006), here we see that controlling shareholder-minority shareholder conflicts arise, in line with the expropriation view.

In Table 2.5, we separately examine the effect of family control on the two components of our primary measure of CSR performance, namely, environmental performance (*ENVIRONMENT*) and social performance (*SOCIAL*). Except for the effect of *FAM_MAN* on *SOCIAL*, the estimated coefficients are all negative and significant, consistent with our findings using *CSR*. Berrone et al. (2010) find that family-controlled firms have better environmental performance in the U.S. Our results suggest that in East Asia, family control leads to worse environmental performance.

In sum, our multivariate analysis on the relation between family control and CSR performance shows that unlike papers that investigate family control and CSR using U.S. data (Berrone et al., 2010; Block and Wagner, 2014; Dyer and Whetten, 2006), family firms in East Asia realize lower CSR performance than non-family firms, which is in line with the negative (i.e., expropriation) view of family firms.

2.4.3. Robustness Tests

In this subsection, we test the robustness of our main findings. First, we address possible endogeneity of family ownership. Second, we check whether our results are influenced by sample composition. Third, we employ alternative methods to estimate the standard errors. Fourth, we examine whether the results are influenced by our definition of family firms. Fifth, we investigate whether our results are driven by outperformance of

firms controlled by other large shareholders. Finally, we compare the CSR performance of family firms from East Asia with that of family firms from the U.S. and Western Europe.

2.4.3.1. Endogeneity

Our main evidence in Table 2.4 suggests that family control has a negative impact on CSR performance. However, family control and CSR performance are likely to be affected by the same firm characteristics. To the extent that firm ownership is systematically related to differences in firm characteristics, the impact of family control on CSR could result from these differences. Our research design helps mitigate concerns about omitted heterogeneity by using year, industry, and country fixed effects, but the possibility remains that some omitted variables affect both family control and CSR. It is also possible that our evidence is driven by reserve causality. For example, a family might maintain a higher stake in a socially irresponsible firm because it is less attractive to outside investors. We address these endogeneity concerns using three approaches. The results are reported in Table 2.6.

First, we employ two-stage least square (2SLS) approach. In the first stage, we use a probit model to regress the family dummy variable of interest on the full set of control variables from our main specification and an instrumental variable of family firm. Prior literature suggests that family ownership is related to risk aversion (Demsetz and Lehn, 1985; Klasa, 2007) and therefore families are more likely to sell their stakes in more volatile industries. Thus we use industry-level return volatility (*VOLATILITY*) to instrument family firms. The result of first stage is presented in Column 1 of Table 2.6. The F-test in the first stage is positive and significant (11.603), suggesting that the instrumental variable is significantly positively related to *FAM_DUM*. In the second stage,

we regress *CSR* on the predicted *FAM_DUM*, and control variables. The result (Column 2 of Table 2.6) confirms that family firms are associated with lower CSR performance. Second, we utilize Heckman selection estimation procedure. The first stage of Heckman model is the same with 2SLS. After estimating the first-stage model, we then regress *CSR* on the inverse Mills' ratio (λ) estimated from the first stage, the predicted *FAM_DUM*, and control variables. The result, reported in Column 3 of Table 2.6, indicates that our main results still hold.

The third approach we use is the propensity score matching (PSM) procedure proposed by Rosenbaum and Rubin (1983). We start by estimating propensity scores in a Probit model, where the dependent variable is *FAM_DUM* and the explanatory variables are as shown in Table 2.4. We match each family firm with a non-family firm that has the closest score to that of the family firm. Then we conduct the regression analysis using the PSM sample (Column 4 of Table 2.6), we find that the impact of *FAM_DUM* on CSR remains significantly negative. Thus, even when non-family firms have similar characteristics as family firms, family firms continue to have a negative impact on CSR performance. In sum, the results of our endogeneity tests consistently support the main results in Table 2.4, suggesting that endogeneity does not affect our main findings.

2.4.3.2. Sample Composition

Another concern is that underperformance of family-controlled firms is driven by a specific group of firms or a certain period. To address this concern, we conduct subsample analysis using all three measures of family control. The results are reported in Table 2.7. We begin by exploring whether the inclusion of firms with multiple large shareholders (MLS) affects our main findings. Prior literature shows that MLS provide more effective

monitoring and hence improve firm performance (Attig, El Ghoul, and Guedhami, 2009; Laeven and Levine, 2008; Maury and Pajuste, 2005). The first row in Table 2.7 reports results after excluding firms without MLS. Our main findings remain unchanged.

We next examine whether the inclusion of financial firms influences our results, as financial firms' investment behavior is shaped by different regulatory environments across countries. The second row of Table 2.7 reports results after excluding financial firms from the analysis. We continue to document a negative and significant effect of family control on CSR performance.

Recall from Table 2.1 that some countries account for nearly 30% of the sample firms (e.g., Japan), while others account for less than 5% (e.g., Philippines). Also, some years are associated with more than 15% of the sample observations (e.g., 2010) while others have only 10% (e.g., 2002 and 2003). To further assess whether sample composition is driving our main evidence, we re-estimate our models using weighted regressions, where countries and years with more observations are given less weight. The results in the third row of Table 2.7 confirm our main evidence.

In our last set of sample composition tests, we examine whether the recent financial crisis impacts our results. Prior literature suggests that family-controlled firms reduce investment more than other firms during financial crises (Lins et al., 2013) and invest more during normal business conditions (Masulis et al., 2011). To examine the effect of the financial crisis, we re-run our main analysis separately for the pre-crisis period (2002-2007), the crisis period (2008-2009), and the post-crisis period (2010-2011). The results are presented in rows 4 to 6 of Table 2.7, respectively, and show that each of the three measures of family control loads significantly negatively on CSR performance in all three

sub-periods. In sum, the tests above consistently suggest that our main results are not driven by sample composition effects.

2.4.3.3. Alternative Estimation Methods

In all other regressions reported in the essay, we use two-way clustering by firm and year. In Table 2.8, we report results for the three measures of family control under alternative methods of estimating the standard errors: OLS, clustering by firm, Newey-West, Generalized Least Squares (GLS), Fama-MacBeth, and Prais-Winsten. The coefficients remain negative and significant, consistent with our main findings.

2.4.3.4. Alternative Definition of Family Firms—20% Threshold

As previously explained in Section 2, in our main analysis the measures of family control are based on an ownership threshold of 10%. To test the sensitivity of our results to the threshold used to define family control, in Table 2.9 we use a 20% threshold, which means that the large shareholders' voting rights are all greater than 20%; recall that Carney and Child (2013) identify ultimate owners at the 10% and 20% thresholds. The results, reported in Table 2.9, are similar to our main evidence: *FAM_DUM_20*, *FAM_CONT_20*, and *FAM_MAN_20* are significantly negatively associated with CSR performance.

2.4.3.5. Other Large Shareholder and CSR

The results so far indicate that family firms in East Asia have lower CSR performance than nonfamily firms. However, the results could be potentially driven by higher CSR performance of firms controlled by other large shareholders. For example, state-owned firms are theoretically viewed as policy tools to cure market failure and to maximize social welfare (Sappington and Stiglitz, 1987), and therefore are expected to have better CSR performance than other firms. Institutional investors may also have a

positive impact on CSR performance (Graves and Waddock, 1994; Johnson and Greening, 1999).

To investigate this possibility, we first examine the impacts of two other types of large shareholders: state (*STATE*) and widely-held firms (*WIDELY-HELD*). STATE is a dummy variable equal to 1 if the largest shareholder is a state or foreign government, while *WIDELY_HELD* is a dummy variable equal to 1 if the largest shareholder is a widely held company or financial institution. Columns 1 to 3 of Table 2.10 report results on the effect of different types of ownership on CSR performance. We find that neither *STATE* nor *WIDELY_HELD* has a significant impact on CSR performance. In Column 4 of Table 2.10, we include *FAM_DUM*, *STATE*, and *WIDELY_HELD* in the regression simultaneously. Only family ownership loads with a significantly negative sign, which is again in line with our main results. These results imply that neither state nor a widely-held firm as the largest shareholder has a direct impact on firms CSR performance.

To further compare family firms' CSR performance relative to other types of controlling owners, we use propensity score matching (PSM) procedure outlined above. We first match each family firm with a state-owned firm using a propensity score matching procedure. The propensity scores are estimated in a Probit model, where the dependent variable is a dummy variable equals one if a firm is a family firm and zero if a firm is a state-owned firm and the explanatory variables are as in Table 2.4. We match each family firm with a state-owned firm that has the closest score to that of the family firm. Then we conduct regression analysis using the matched sample (Column 5 of Table 2.10), and we find that the negative impact of family firms is still significant. This result suggests that, compared with state-owned firms that have similar characteristics, family firms have lower

CSR performance. We repeated this procedure for family firms versus firms which the largest shareholder is a widely-held firm (Column 6 of Table 2.10), and for family firms versus firms with dispersed ownership (Column 7 of Table 2.10). Family firms continue to show lower CSR performance than their counter-factual firms. All these results confirm that family firms in East Asia underperform on CSR than other firms and the evidence is not driven by one certain type of counter-factual firms.

4.3.6. CSR Performance of East Asian Family Firms versus Family Firms from the U.S. and Western Europe: A Propensity Score Analysis

Our main evidence of a negative relationship between family control and CSR performance for East Asian corporations contrasts with evidence from the U.S. One potential explanation is that East Asian family firms are fundamentally different from U.S. family firms. To address this possibility, we implement a propensity score matching to control for variation in the characteristics of East Asian and U.S. family firms. We obtain U.S. family firms data from Andersen and Reeb (2003a). We match each East Asian family firm with a U.S. family firm with similar characteristics (*SIZE*, *AGE*, *MTB*, *LEV*, *ROA*, *RDS*). We next re-estimate our main regression using the matched sample as a strategy to better control for differences in family firms characteristic across East Asia and the U.S. The results reported in Column 1 of Table 2.11 suggest that East Asian family firms show significantly lower CSR performance than U.S. family firms. In Column 2 of Table 2.11, we repeat the same analysis to compare the CSR performance of family firms in East Asia and Western Europe. We obtain data on family firms in Western Europe from Faccio and Lang (2002). The results based on propensity score–matched samples suggest a

significantly lower CSR performance of East Asian family firms compared with their peers in Western Europe.

2.5. Additional Analyses

2.5.1. The Role of Corporate Governance

Our main finding, namely, that family firms in East Asia are associated with lower CSR performance than non-family firms, is consistent with the expropriation view. To shed further light on this result, we examine whether the CSR underperformance of family firms is more pronounced in firms with weak corporate governance. Prior literature suggests that corporate governance is positively related to corporate social responsibility (Ferrell, Liang and Renneboog, 2014; Jo and Harjoto, 2011). We assess firm-level corporate governance using measures of firms' potential agency costs, ownership structure, and board structure.

2.5.1.1. Agency Costs

To capture firms' agency costs, we follow Lins et al. (2013) and use two measures: free cash flow defined as (EBITDA-Capital expenditures)/Assets and cash holdings defined as the ratio of cash to total assets. More cash is expected to lead to higher agency costs, as it can provide controlling families more opportunity to divert resources to projects that benefit themselves at the expense of minority shareholders. Thus, if the expropriation hypothesis holds, the CSR underperformance of family firms should be more pronounced in firms with more free cash flow and cash holdings. To test this conjecture, in Columns 1 to 4 of Table 2.12 we split the sample by the median free cash flow and median cash holdings. Consistent with the expropriation view, we find that the coefficient on *FAM_DUM* is significantly negative only for the subsample of firms with higher agency

costs[3]. For the subsample of firms with lower agency costs, the differences between family firms and other firms are not significant.

2.5.1.2. Ownership Structure

As we discuss above, prior work shows that multiple large shareholders (MLS) provide more effective monitoring. The presence of MLS should thus prevent controlling families from expropriating minority shareholders and in turn improve CSR performance. To test this conjecture we employ two proxies for the monitoring role of MLS: the presence of MLS (*MULTIPLE LARGE SHAREHOLDERS*) and the dispersion of voting rights among the five largest shareholders (*DISPERSION OF CONTROL*). *MULTIPLE LARGE SHAREHOLDERS* is a dummy variable equal to 1 if a firm has a second controlling shareholder and 0 otherwise. *DISPERSION OF CONTROL* is the adjusted Herfindhal index of the difference in voting rights between the five largest shareholders: (1/ (Cont1-Cont2)^2 + (Cont2-Cont3)^2 + (Cont3-Cont4)^2 + (Cont4-Cont5)^2). The more voting rights, the lower the concentration of ownership, which means that MLS have more incentives to monitor management. In Columns 5 to 8 of Table 2.12, we split the sample according to *MULTIPLE LARGE SHAREHOLDERS* and *DISPERSION OF CONTROL*[4][5], Consistent with our expectations, family firms underperform relative to other firms only in the subsamples with no or low monitoring of MLS.

2.5.1.3. Board Structure

[3] For brevity, in Tables 12 and 13 we only report the coefficients on *FAMILY_DUMMY*. The results for *FAMILY_CONTROL* and *FAMILY_MANAGER* are similar.

[4] When splitting subsamples by *MULTIPLE LARGE SHAREHOLDERS*, we exclude widely held firms that do not have controlling owners.

[5] We try other proxies for MLS, such as the voting rights of the second-largest shareholder, the ratio of the voting rights of the second-largest shareholder to the voting rights of the controlling owner, the number of MLS beyond the controlling owner, and the ratio of the voting rights of the largest four shareholders to the voting rights of the controlling owner. The results are the same as those reported above.

Firms can also improve corporate governance and mitigate agency problems through an efficient board of directors. If the expropriation view holds, the CSR underperformance of family firms should be more pronounced for firms with less efficient boards. To capture board efficiency, we employ board size and board expertise.

Although larger boards can potentially offer better advice (Dalton et al., 1999), they may be less efficient because of increased communication and coordination problems (Jensen, 1993; Lipton and Lorsch, 1992). Prior work finds a negative relationship between board size and firm value (Yermack, 1996; Eisenberg, Sundgren, and Wells, 1998). More recently, Coles, Daniel, and Naveen (2008) find that the optimal board size is eight for simple firms or 12 for complex firms. Accordingly, we proxy for board size using ASSET4's *BOARD SIZE*, which is defined as the total number of board members in excess of ten or below eight. A lower score for *BOARD SIZE* reflects more board members above or below the optimal board size and therefore less board efficiency. In Columns 9 and 10 of Table 2.12, the results of subsamples split by *BOARD SIZE* are consistent with the expectation that CSR underperformance of family firms is more pronounced among firms with a large or small board size.

More financial experts on the board may also lead to better monitoring (e.g., Anderson and Reeb, 2004). To measure board financial expertise, we use ASSET4's *BOARD EXPERTISE*, which is the percentage of board members who have either an industry specific background or a strong financial background. Higher score implies greater board effectiveness. Consistent with our conjecture, CSR underperformance of family firms is more pronounced among firms with few board members with financial expertise (Columns 11 to 12 of Table 2.12).

In sum, Table 2.12 results suggest that family firms tend to underperform on CSR when they have greater agency problems and less effective monitoring from either outside shareholders or board members. In contrast, family firms with better corporate governance do not underperform on CSR compared to non-family firms. These results are consistent with the expropriation view and support our main results.

2.5.2. The Role of Country-Level Institutions

While studies using U.S. data find a positive relationship between family control and CSR performance (Dyer and Whetten, 2006; Berrone et al., 2010), our results based on East Asian data find the opposite. Why does the effect of family firms on CSR performance vary across countries? One explanation could be differences in institutional environment. While family firms have stronger reputation and long-term horizon incentives to invest in CSR than other firms, the institutional environment can impact these incentives Indeed, Ioannou and Serafeim (2012) find that country-level institutions significantly affect firms' CSR performance. In this section, we examine whether institutions influence the relationship we document above between family control and CSR performance.

2.5.2.1. Media Freedom

Prior literature suggests that the media affect corporate governance outcomes (Dyck and Zingales, 2002, 2004) and corporate fraud (Miller, 2006; Dyck, Morse, and Zingales, 2010). A robust and independent media could increase the reputation and legal costs of diverting firm resources to consume private benefits (Dyck, Volchkova, and Zingales, 2008), and hence may deter controlling families from expropriating minority shareholders. But if the media can be easily influenced by lobbying or political pressure,

controlling families are less likely to be punished for expropriation. We therefore expect family firms to invest less in CSR in countries with lower freedom of the press. To test this conjecture, we use *PRESS FREEDOM*, which comes from Freedom House and assesses the degree of print, broadcast, and internet independence. *PRESS FREEDOM* ranges from 0 (most free) to 100 (least free). We adjust this index so that higher scores indicate more media independence. In Columns 1 and 2 of Table 2.13, we split sample firms by the median *PRESS FREEDOM*. The results are consistent with our expectation that CSR underperformance of family firms is more significant in countries with low media Independence.

2.5.2.2. Political Connections

A firm is defined as politically connected if one of the company's large shareholders or top directors is a member of parliament, a minister, or the chief of state, or is "closely related" to a top politician (Faccio, 2006). Firms can benefit from political connections through, for example, higher tariffs on competitors' products, reduced regulatory requirements, or valuable government contracts (Goldman, Rocholl, and So, 2009). Politically connected firms are also more likely to be bailed out, to pay lower taxes, and have a lower cost of capital (Faccio, 2006, 2010; Chaney, Faccio, and Parsley, 2011; Boubakri et al., 2012). We posit that in countries where political connections are prevalent, family firms have less incentive to invest in CSR because they can benefit more by establishing political connections. To test this conjecture, in Columns 3 and 4 of Table 2.13 we conduct subsample tests based on political connections. We use political connection data from Faccio (2006). *POLITICAL CONNECTIONS* is defined as the percentage of firms in a country that are connected with a minister or a member of parliament, or that

have a close relationship with a politician (p. 373)[6]. The subsample results show that in countries with more political connections, family firms invest less in CSR compared to non-family firms. In countries with fewer political connections, however, family firms show no significant difference on CSR performance.

2.5.2.3. Investor Protection

In countries with a relatively weak investor protection, controlling families are more likely to expropriate minority shareholders (La Porta et al., 2000). We thus expect family firms to invest less in CSR activities in countries with a weak investor protection. To measure investor protection, we follow Bae and Goyal (2009) to employ an index aggregating three indices: corruption, risk of repudiation, and risk of expropriation. This index reflects the extent to which a country's legal system and institutions protect private property and enforce all contracts. Data source is International Country Risk Guide (ICRG). According to ICRG, the corruption index is "an assessment of corruption within the political system. Such corruption is a threat to foreign investment for several reasons: it distorts the economic and financial environment; it reduces the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability; and, last but not least, introduces an inherent instability into the political process." Risk of Repudiation "addresses the possibility that foreign businesses, contractors, and consultants face the risk of a modification in a contract taking the form of a repudiation, postponement, or scaling down due to an income drop, budget cutbacks, indigenization pressure, a change in government, or a change in government economic and

[6] Other political connection definitions (% of politically connected listed firms in a country, and connected firms as a % of market capitalization) give the same results.

social priorities." Risk of Expropriation evaluates the risk "outright confiscation and forced nationalization" of property. In Columns 5 to 6 of Table 2.13, subsample tests using this index indicate that CSR underperformance of family firms concentrate only in countries with weaker investor protection.

In sum, family firms are less likely to invest in CSR in countries with low freedom of the press, more political connections, and weaker investor protection. In countries with better institutions, we do not find evidence of significant differences on CSR between family firms and non-family firms. Thus, while family firms have stronger incentives to increase their reputation through CSR investment, a weak institutional environment may reduce these incentives. Differences in institutional environment may also explain why family firms perform differently on CSR in the U.S. and East Asia.

2.6. Conclusion

Motivated by the scarce evidence on the CSR activities of family firms outside the U.S., this essay examines the relationship between family control and CSR by employing new ownership structure data and updated CSR data from nine East Asian economies.

A large ownership stake may create agency conflicts between controlling families and minority shareholders if controlling families can use their voting rights to divert firm resources from CSR projects to other projects that benefit themselves. This expropriation view suggests that family firms have lower CSR performance than non-family firms. However, family firms have greater reputation concerns than non-family firms (Dyer and Whetten, 2006; Zellweger et al., 2011), which may lead family firms to invest more in CSR activities. Family firms' longer horizon (Miller and Le Breton-Miller, 2005) may further

lead family firms to invest more in CSR to help support long-term relationships with stakeholders. The reputation/long-term horizon view thus suggests that family firms have higher CSR performance than non-family firms.

In this essay, we find support for the expropriation view of family firms. In particular, we find a significantly negative impact of family control on CSR after controlling for firm, industry, and country characteristics. This negative relationship is robust to separately examining the components of our primary CSR measure, as well as to endogeneity tests, sample composition tests, alternative estimation methods, alternative definition of family firms, comparisons with other large shareholders, and comparisons with family firms from other countries.

To shed further light on our main finding, we first examine whether the CSR underperformance of family firms is more pronounced in firms with greater agency problems as indicated by proxies for firms' agency costs, ownership structure, and board structure. The results show that family firms underperform on CSR when they have greater agency problems, when monitoring by outside shareholders is less effective, or when monitoring by board members is less efficient. These findings are consistent with the expropriation view and support our main results. Next, we investigate whether country-level institutions affect families' incentives to invest in CSR. We find that family firms are less likely to invest in CSR in countries with low freedom of the press, more political connections, and weaker investor protection. Thus, while family firms have more incentives to augment their reputation through CSR activities, a weak institutional environment may reduce these incentives. Differences in institutional environment might also explain why family firms perform differently on CSR in the U.S. and East Asia.

Overall, this essay contributes to the literature on the determinants of CSR, the literature on the impact of family control, and the literature on the impact of country-level institutions. With respect to the first line of research, we highlight the importance of understanding ownership structure when studying the determinants of CSR. We further show that in East Asia, only the family ownership structure has a significant impact on CSR. With respect to the second line of research, we confirm prior evidence on the expropriation effects of family control in East Asia and suggest that lower CSR performance could be one consequence of expropriation. With respect to the third line of research, we show that country-level institutions may alter controlling families' incentives to invest in CSR.

Table 2.1 Sample Composition

	Firms	Family	Percent of	Obs	Family	Percent of
Full Sample	335	94	28.06%	1719	403	23.44%
By Industry						
Business Equipment	40	11	27.50%	199	57	28.64%
Chemicals and Allied	9	3	33.33%	46	4	8.70%
Consumer Durables	18	4	22.22%	127	21	16.54%
Consumer Nondurables	20	11	55.00%	86	34	39.53%
Finance	78	22	28.21%	369	115	31.17%
Healthcare	11	2	18.18%	80	14	17.50%
Manufacturing	33	9	27.27%	171	28	16.37%
Energy	18	3	16.67%	75	6	8.00%
Telephone and Television	22	5	22.73%	110	24	21.82%
Utilities	19	3	15.79%	120	17	14.17%
Wholesale, Retail, and	13	4	30.77%	71	19	26.76%
Other	54	17	31.48%	265	64	24.15%
By Country						
Hong Kong	36	15	41.67%	219	111	50.68%
Indonesia	17	6	35.29%	41	14	34.15%
Japan	124	13	10.48%	963	101	10.49%
Malaysia	27	12	44.44%	65	26	40.00%
Philippines	6	5	83.33%	12	10	83.33%
Singapore	25	6	24.00%	161	39	24.22%
South Korea	47	27	57.45%	130	78	60.00%
Taiwan	38	6	15.79%	87	13	14.94%
Thailand	15	4	26.67%	41	11	26.83%
By Year						
2002	20	2	10.00%	20	2	10.00%
2003	21	2	9.52%	21	2	9.52%
2004	126	30	23.81%	126	30	23.81%
2005	165	35	21.21%	165	35	21.21%
2006	168	35	20.83%	168	35	20.83%
2007	183	37	20.22%	183	37	20.22%
2008	229	52	22.71%	229	52	22.71%
2009	269	69	25.65%	269	69	25.65%
2010	326	91	27.91%	326	91	27.91%
2011	212	50	23.58%	212	50	23.58%

This table presents the sample distribution by industry (Fama–French 12 Industry Groups), country, and year for the 1,719 observations representing 335 unique firms over the period 2002-2011.

Table 2.2 Descriptive Statistics and Correlation Matrix

Panel A Descriptive Statistics							
	Mean	SD	Min	P25	P50	P75	Max
CSR	56.044	29.614	6.690	26.275	59.690	85.115	97.570
ENVIRONMENT	59.242	32.370	9.070	24.190	69.180	91.150	97.170
SOCIAL	52.845	31.189	3.380	21.880	54.540	83.780	98.260
FAM_DUM	0.234	0.424	0.000	0.000	0.000	0.000	1.000
FAM_CONT	7.711	16.178	0.000	0.000	0.000	0.000	100.000
FAM_MAN	0.166	0.373	0.000	0.000	0.000	0.000	1.000
SIZE	9.584	1.393	5.749	8.647	9.560	10.384	14.794
AGE	3.803	0.847	0.000	3.434	3.989	4.369	5.823
MTB	1.477	0.744	0.810	1.039	1.206	1.605	5.072
LEV	0.157	0.140	0.000	0.032	0.128	0.240	0.539
ROA	0.050	0.054	-0.069	0.013	0.038	0.075	0.240
RDS	0.018	0.038	0.000	0.000	0.000	0.023	0.317

Panel B Correlation Matrix

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
CSR	(1)	1.000											
ENVIRONMENT	(2)	0.934***	1.000										
SOCIAL	(3)	0.929***	0.737***	1.000									
FAM_DUM	(4)	-0.198***	-0.242***	-0.124***	1.000								
FAM_CONT	(5)	-0.241***	-0.287***	-0.159***	0.862***	1.000							
FAM_MAN	(6)	-0.205***	-0.236***	-0.143***	0.807***	0.734***	1.000						
SIZE	(7)	0.274***	0.258***	0.252***	-0.149***	-0.177***	-0.130***	1.000					
AGE	(8)	0.201***	0.244***	0.127***	-0.020	-0.013	-0.080***	0.142***	1.000				
MTB	(9)	-0.136***	-0.169***	-0.083***	0.109***	0.095***	0.063**	-0.522***	-0.266***	1.000			
LEV	(10)	0.040	0.081***	-0.007	-0.031	-0.022	0.010	0.150***	0.037	-0.230***	1.000		
ROA	(11)	-0.106***	-0.153***	-0.043	0.182***	0.178***	0.151***	-0.492***	-0.272***	0.731***	-0.288***	1.000	
RDS	(12)	0.221***	0.231***	0.179***	-0.105***	-0.041	-0.114***	-0.089***	0.272***	0.025	-0.234***	0.022	1.000

This table reports descriptive statistics (Panel A) and Pearson correlation coefficients (Panel B) for the regression variables. The full sample is composed of 1,719 observations representing 335 unique firms over the period 2002-2011. Definitions and data sources for the variables are provided in Appendix A. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.3 Univariate Tests: Family Firms versus Non-Family Firms

	Family Firms			Non-Family Firms			Differences
	N	Mean	SD	N	Mean	SD	Mean(t-statistics)
CSR	403	45.475	30.760	1316	59.280	28.492	-8.351***
ENVIRONMENT	403	45.107	33.203	1316	63.571	30.853	-10.322***
SOCIAL	403	45.842	31.147	1316	54.990	30.898	-5.191***
SIZE	403	9.208	1.264	1316	9.698	1.411	-6.250***
AGE	403	3.772	0.678	1316	3.812	0.893	-0.826
MTB	403	1.623	0.942	1316	1.433	0.665	4.523***
LEV	403	0.149	0.127	1316	0.159	0.143	-1.272
ROA	403	0.067	0.058	1316	0.044	0.051	7.688***
RDS	403	0.011	0.030	1316	0.020	0.036	-4.356***

This table reports the results of univariate tests for differences between family firms and non-family firms. The sample is composed of 1,719 firm-year observations representing 335 unique firms over the period 2002-2011. Definitions and data sources for the variables are provided in Appendix A. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.4 Family and CSR: Main Evidence

	(1)	(2)	(3)
FAM_DUM	-9.138***		
	(-2.697)		
FAM_CONT		-0.252***	
		(-3.436)	
FAM_MAN			-8.646**
			(-2.169)
SIZE	9.121***	8.880***	9.103***
	(7.790)	(7.461)	(7.758)
AGE	5.987***	5.762***	5.571***
	(3.875)	(3.706)	(3.590)
MTB	-0.192	-0.503	-0.500
	(-0.104)	(-0.265)	(-0.264)
LEV	8.388	9.024	9.064
	(0.786)	(0.846)	(0.850)
ROA	45.437**	47.254**	46.462**
	(2.158)	(2.199)	(2.155)
RDS	71.319	87.698	77.649
	(1.331)	(1.644)	(1.409)
Constant	-48.828***	-46.033***	-48.027***
	(-3.226)	(-2.981)	(-3.012)
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Country FE	Yes	Yes	Yes
Observations	1,719	1,719	1,719
Adjusted R^2	0.358	0.360	0.355

This table reports regressions of CSR performance on family control variables. The sample is composed of 1,719 firm-year observations representing 335 unique firms over the period 2002-2011. The dependent variable is *CSR*, the overall CSR performance of a firm, equal to the average of environmental performance and social performance. Definitions and data sources for the variables are provided in Appendix A. All regressions include year, industry, and country fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.5 Family and CSR: Components of CSR

	DV: ENVIRONMENT			*DV: SOCIAL*		
	(1)	(2)	(3)	(4)	(5)	(6)
FAM_DUM	-12.192***			-6.085*		
	(-3.229)			(-1.779)		
FAM_CONT		-0.339***			-0.165**	
		(-4.065)			(-2.137)	
FAM_MAN			-11.686***			-5.607
			(-2.608)			(-1.445)
SIZE	7.689***	7.361***	7.659***	10.553***	10.400***	10.547***
	(5.804)	(5.461)	(5.724)	(8.979)	(8.729)	(8.999)
AGE	6.648***	6.352***	6.096***	5.326***	5.172***	5.046***
	(3.938)	(3.750)	(3.594)	(3.115)	(3.015)	(2.960)
MTB	-2.081	-2.500	-2.497	1.698	1.493	1.496
	(-1.045)	(-1.221)	(-1.223)	(0.873)	(0.749)	(0.754)
LEV	16.664	17.555	17.628	0.112	0.493	0.501
	(1.388)	(1.469)	(1.464)	(0.010)	(0.044)	(0.045)
ROA	55.050**	57.567**	56.536**	35.824	36.942	36.388
	(2.219)	(2.283)	(2.208)	(1.419)	(1.444)	(1.437)
RDS	44.296	66.306	52.792	98.343	109.090*	102.505*
	(0.840)	(1.335)	(0.966)	(1.634)	(1.784)	(1.680)
Constant	-26.946	-23.126	-25.782	-70.709***	-68.939***	-70.272***
	(-1.605)	(-1.342)	(-1.445)	(-4.492)	(-4.340)	(-4.322)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,719	1,719	1,719	1,719	1,719	1,719
Adjusted R^2	0.395	0.398	0.389	0.284	0.284	0.282

This table reports regressions of CSR components on family control variables. The sample is composed of 1,719 firm-year observations representing 335 unique firms over the period 2002-2011. The dependent variable of Columns 1-3 is *ENVIRONMENT*, the environmental performance. The dependent variable of Columns 4-6 is *SOCIAL*, the social performance. Definitions and data sources for the variables are provided in Appendix A. All regressions include year, industry, and country fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.6 Family and CSR: Endogeneity

	Probit	2SLS	Heckman	PSM
	(1)	(2)	(3)	(4)
FAM_DUM		-68.475***	-48.140**	-9.397***
		(-13.425)	(-2.130)	(-2.738)
SIZE	-0.136***	-1.877**	5.109***	8.908***
	(-3.999)	(-2.273)	(3.790)	(6.171)
AGE	0.211***	21.018***	7.695***	9.110***
	(3.928)	(14.814)	(3.447)	(5.467)
ROA	0.862	110.307***	96.035***	41.070*
	(0.770)	(6.560)	(4.011)	(1.747)
LEV	0.274	38.269***	19.501*	12.218
	(0.967)	(7.289)	(1.805)	(1.007)
MTB	0.120	7.705***	0.745	2.855*
	(1.457)	(5.146)	(0.336)	(1.654)
RDS	1.264	185.486***	162.277***	66.033
	(1.092)	(8.468)	(3.146)	(1.049)
VOLATILITY	-22.215***			
	(-3.082)			
λ			20.936	
			(1.565)	
Constant	-0.166	-83.745***	-22.877	-34.558*
	(-0.305)	(-9.614)	(-1.319)	(-1.750)
Year FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Observations	1,719	1,719	1,719	806
Adjusted R^2/R^2	0.197	0.268	0.226	0.350
First-stage F-test	11.603 (p<0.001)			

This table reports results of two-stage least square (2SLS) approach, Heckman selection estimation procedure, and propensity score matching (PSM) procedure. The sample is composed of 1,719 firm-year observations representing 335 unique firms over the period 2002-2011. *VOLATILITY* is the median return volatility in each industry. λ is the inverse Mills ratio produced by in the Heckman model. Definitions and data sources for other variables are provided in Appendix A. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.7 Family and CSR: Robustness Tests of Sample Composition and Period

	N	*FAM_DUM*	*FAM_CONT*	*FAM_MAN*
Without Multiple Large Shareholders	1,582	-10.789***	-0.288***	-9.207**
		(-2.685)	(-3.690)	(-1.985)
Without Financial Firms	1,350	-9.319**	-0.204**	-10.555**
		(-2.378)	(-2.277)	(-2.482)
Weighted Least Squares	1,719	-9.125***	-0.209***	-10.992***
		(-4.371)	(-4.614)	(-4.358)
Before Crisis (2002-2007)	683	-13.629***	-0.305***	-12.684**
		(-2.935)	(-3.066)	(-2.089)
During Crisis (2008-2009)	498	-5.879**	-0.192**	-6.388*
		(-2.176)	(-2.566)	(-1.944)
After Crisis (2010-2011)	538	-8.242***	-0.263***	-8.880**
		(-3.659)	(-4.017)	(-2.580)

This table reports regression coefficients of CSR performance on family control variables to different sample composition and period. The dependent variable is *CSR*. All regressions include *SIZE*, *AGE*, *MTB*, *LEV*, *ROA*, *RDS*, year, industry, and country fixed effects. Definitions and data sources for the variables are provided in Appendix A. Weighted least squares regressions use the firm numbers in each country-year group as the weight. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.8 Family and CSR: Alternative Estimation Methods

	N	*FAM_DUM*	*FAM_CONT*	*FAM_MAN*
OLS	1,719	-9.138***	-0.252***	-8.646***
		(-5.505)	(-6.697)	(-4.377)
Firm Clustered	1,719	-9.138**	-0.252***	-8.646**
		(-2.542)	(-3.220)	(-2.037)
Newey-West	1,719	-9.138***	-0.252***	-8.646***
		(-4.279)	(-5.233)	(-3.421)
GLS	1,719	-7.889**	-0.207***	-7.979**
		(-2.490)	(-2.814)	(-2.144)
Fama-MacBeth	1,719	-23.425**	-0.629**	-22.493**
		(-2.505)	(-2.493)	(-2.347)
Prais-Winsten	1,719	-7.844***	-0.209***	-7.961**
		(-2.603)	(-2.706)	(-2.384)

This table reports regression coefficients of CSR performance on family control variables by using alternative estimation methods. The sample is composed of 1,719 firm-year observations representing 335 unique firms over the period 2002-2011. The dependent variable is *CSR*. All regressions include *SIZE*, *AGE*, *MTB*, *LEV*, *ROA*, *RDS*, year, industry, and country fixed effects. Definitions and data sources for the variables are provided in Appendix A. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.9 Family and CSR: Alternative Definition of Family Firms

	(1)	(2)	(3)
FAM_DUM_20	-6.742*		
	(-1.869)		
FAM_CONT_20		-0.231***	
		(-3.763)	
FAM_MAN_20			-8.102*
			(-1.886)
SIZE	9.927***	9.865***	9.893***
	(8.937)	(9.136)	(8.974)
AGE	4.678***	4.749***	4.530***
	(3.240)	(3.319)	(3.164)
MTB	0.492	0.381	0.494
	(0.271)	(0.209)	(0.273)
LEV	9.505	9.165	10.251
	(0.956)	(0.934)	(1.031)
ROA	37.212*	38.653*	37.159*
	(1.733)	(1.790)	(1.716)
RDS	114.967**	127.299***	119.518***
	(2.545)	(2.871)	(2.629)
Constant	-44.225***	-43.062***	-44.358***
	(-3.022)	(-3.020)	(-2.928)
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Country FE	Yes	Yes	Yes
Observations	2,063	2,063	2,063
Adjusted R^2	0.383	0.390	0.384

This table reports regressions of CSR performance on family control variables by using alternative definition of family firms (20% threshold). The sample is composed of 2,063 firm-year observations representing 384 unique firms over the period 2002-2011. The dependent variable is *CSR*, the overall CSR performance of a firm, equal to the average of environmental performance and social performance. *FAM_DUM_20* is a dummy variable equal to 1 if the largest shareholder (voting rights over 20%) is a family, 0 otherwise. *FAM_CONT_20* is the percentage of voting rights shares held by the controlling family. *FAM_MAN_20* is a dummy variable equal to 1 if the controlling family is also the CEO, the Board Chairman, or Vice-Chairman, 0 otherwise. Definitions and data sources for other variables are provided in Appendix A. All regressions include year, industry, and country fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.10 Other Large Shareholders and CSR

				PSM			
					Family versus State	Family versus Widely Held	Family versus Dispersed Ownership
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
FAM_DUM	-9.138***			-7.873**	-9.860**	-9.585*	-8.397*
	(-2.697)			(-1.992)	(-2.329)	(-1.892)	(-1.933)
STATE		5.33		1.522			
		-1.516		-0.378			
WIDELY_HELD			5.189	3.89			
			-1.335	-0.913			
SIZE	9.121***	9.190***	9.875***	9.398***	6.553***	7.669***	10.531***
	-7.79	-7.669	-8.214	-7.748	-4.009	-3.215	-5.202
AGE	5.987***	5.969***	5.670***	6.273***	6.192***	5.024*	9.441***
	-3.875	-3.692	-3.506	-3.834	-2.783	-1.713	-2.717
MTB	-0.192	-0.399	-0.09	-0.115	1.656	2.092	0.473
	(-0.104)	(-0.203)	(-0.046)	(-0.062)	-0.742	-0.866	-0.198
LEV	8.388	5.954	8.369	10.254	5.273	-15.357	0.999
	-0.786	-0.555	-0.748	-0.934	-0.4	(-0.609)	-0.054
ROA	45.437**	42.703**	44.773**	49.333**	53.137*	-49.876	-5.187
	-2.158	-2.02	-2.254	-2.348	-1.816	(-1.425)	(-0.195)
RDS	71.319	69.463	76.447	71.64	-8.473	141.076	2.897
	-1.331	-1.253	-1.398	-1.351	(-0.100)	-1.515	-0.04
Constant	-48.828***	-55.952***	-59.833***	-54.913***	-47.620*	-32.616	-83.383***
	(-3.226)	(-3.724)	(-3.752)	(-3.364)	(-1.796)	(-1.197)	(-3.315)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,719	1,719	1,719	1,719	770	536	628
Adjusted R^2	0.358	0.349	0.349	0.359	0.308	0.388	0.448

This table reports regressions of CSR performance on family control variables. The sample is composed of 1,719 firm-year observations representing 335 unique firms over the period 2002-2011. The dependent variable is *CSR*. *STATE* is a dummy variable equal to 1 if the largest shareholder is the state or a foreign government. *WIDELY_HELD* is a dummy variable equal to 1 if the largest shareholder is a widely-held company or a widely-held financial institution. Definitions and data sources for other variables are provided in Appendix A. All regressions include year, industry, and country fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.11 Family and CSR: Comparisons with Family Firms from Other Countries

	East Asian Family Firms Versus U.S. Family Firms	East Asian Family Firms Versus Western European Family Firms
	(1)	(2)
FAMILY_EA	-12.487**	-21.408***
	(-2.098)	(-6.025)
SIZE	8.766***	8.691***
	(5.657)	(6.265)
AGE	-2.463	9.086
	(-0.484)	(1.295)
MTB	1.095	0.108
	(0.447)	(0.055)
LEV	-1.151	10.911
	(-0.078)	(0.957)
ROA	26.061	31.794*
	(1.027)	(1.672)
RDS	83.649	114.117
	(1.545)	(1.533)
Constant	-54.638**	-35.484*
	(-2.058)	(-1.789)
Year FE	Yes	Yes
Industry FE	Yes	Yes
Observations	746	734
Adjusted R^2	0.365	0.384

This table reports regressions comparing the CSR performance of East Asian family firms versus family firms from the U.S. and Western Europe using propensity score–matched samples. In Column 1, each East Asian family firm is matched with a U.S. family firm. In Column 2, each East Asian family firm is matched with a Western European family firm. The dependent variable is *CSR*. *FAMILY_EA* is a dummy variable that equals one if a firm is a family firm from East Asia. Definitions and data sources for other variables are provided in Appendix A. All regressions include year, industry, and country fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.12 Family and CSR: the Role of Corporate Governance

	Agency Costs				Ownership Structure	
	DISPERSION OF CONTROL		*BOARD SIZE*		*BOARD EXPERTISE*	
	High	Low	High	Low	High	Low
	(7)	(8)	(9)	(10)	(11)	(12)
FAM_DUM	-12.800***	-6.057	-9.472**	-7.955	-3.825	-9.188**
	(-3.044)	(-1.298)	(-2.107)	(-1.296)	(-0.391)	(-2.088)
SIZE	13.928***	9.495***	14.597***	8.999***	7.761***	8.484***
	(9.200)	(5.141)	(9.812)	(5.062)	(3.524)	(5.205)
AGE	4.341*	7.703***	5.527**	8.263***	10.942*	3.264*
	(1.661)	(3.392)	(2.193)	(3.102)	(1.957)	(1.808)
MTB	1.727	-1.404	4.788*	0.291	0.806	0.394
	(0.793)	(-0.303)	(1.850)	(0.087)	(0.262)	(0.173)
LEV	11.012	-40.649**	11.041	-31.113	-19.069	5.908
	(0.818)	(-2.169)	(0.790)	(-1.524)	(-1.371)	(0.468)
ROA	19.015	0.243	-35.866	85.492**	-17.868	83.937***
	(0.636)	(0.006)	(-1.102)	(2.134)	(-0.526)	(2.958)
RDS	57.132	21.524	35.657	165.607**	560.236*	57.765
	(1.021)	(0.278)	(0.642)	(2.004)	(1.836)	(0.879)
Constant	-90.272***	-49.868***	-64.143***	-42.637	-55.943***	-52.775**
	(-3.960)	(-2.813)	(-3.034)	(-1.580)	(-2.699)	(-1.973)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	671	672	675	675	137	925
Adjusted R^2	0.382	0.395	0.376	0.399	0.811	0.331

Table 2.12-*continued*

	Ownership Structure		Board Structure			
	DISPERSION OF CONTROL		*BOARD SIZE*		*BOARD EXPERTISE*	
	High	Low	High	Low	High	Low
	(7)	(8)	(9)	(10)	(11)	(12)
FAM_DUM	-7.929	-12.878***	-7.542	-10.079**	-6.329	-9.285**
	(-1.604)	(-3.179)	(-1.577)	(-2.331)	(-1.601)	(-2.355)
SIZE	12.043***	7.335***	7.659***	10.396***	10.130***	7.090***
	(7.327)	(4.446)	(5.048)	(8.369)	(7.085)	(3.980)
AGE	7.181**	4.586**	4.135**	8.835***	8.617***	5.035***
	(2.132)	(2.514)	(2.229)	(4.689)	(4.334)	(2.673)
MTB	-5.400**	3.468*	-0.205	-1.990	1.219	-2.509
	(-2.039)	(1.758)	(-0.088)	(-0.916)	(0.425)	(-1.181)
LEV	-0.133	6.486	0.939	17.763	17.772	-19.086
	(-0.007)	(0.505)	(0.078)	(1.198)	(1.276)	(-1.408)
ROA	17.561	56.521**	44.671**	62.551**	61.651**	45.571
	(0.437)	(2.018)	(1.971)	(2.442)	(2.130)	(1.470)
RDS	59.893	62.787	81.911	39.269	-5.655	51.662
	(0.978)	(0.748)	(1.454)	(0.592)	(-0.089)	(0.607)
Constant	-47.725**	-33.845	-68.715***	-50.597***	-115.701***	-6.972
	(-2.194)	(-1.385)	(-3.713)	(-2.798)	(-5.236)	(-0.260)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	854	865	833	886	556	557
Adjusted R^2	0.427	0.352	0.354	0.412	0.390	0.327

This table reports regressions of CSR performance on family firms in split samples by whether firms have high or low agency problems. The sample is composed of 1,719 firm-year observations representing 335 unique firms over the period 2002-2011. The dependent variable is CSR, the overall CSR performance of a firm, equal to the average of environmental performance and social performance. Definitions and data sources for other variables are provided in Appendix A. All regressions include year, industry, and country fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2.13 Family and CSR: the Role of Institutional Environment

	PRESS FREEDOM		*POLITICAL CONNECTIONS*		*INVESTOR PROTECTION*	
	High	Low	High	Low	High	Low
	(1)	(2)	(3)	(4)	(5)	(6)
FAM_DUM	-9.628	-7.326**	-7.135*	-9.349	-8.644	-10.501***
	(-1.428)	(-1.982)	(-1.816)	(-1.425)	(-1.600)	(-2.734)
SIZE	10.127***	8.203***	7.435***	10.114***	8.402***	8.949***
	(5.523)	(5.466)	(4.509)	(5.578)	(6.113)	(5.113)
AGE	4.336*	6.273***	5.956***	4.579*	5.347**	7.028***
	(1.660)	(3.799)	(3.495)	(1.763)	(2.390)	(4.269)
MTB	-4.259	3.131	2.949	-3.862	-3.081	0.799
	(-1.340)	(1.362)	(1.118)	(-1.233)	(-1.175)	(0.372)
LEV	-0.242	5.652	5.459	0.315	13.457	-17.396
	(-0.014)	(0.488)	(0.416)	(0.018)	(0.979)	(-1.484)
ROA	-28.646	51.988**	51.492*	-33.565	26.293	73.014***
	(-0.626)	(2.441)	(1.930)	(-0.774)	(0.803)	(3.673)
RDS	15.319	52.169	-70.744	8.845	60.006	-3.723
	(0.183)	(0.887)	(-0.843)	(0.121)	(0.891)	(-0.057)
Constant	-22.395	-65.824***	-80.705***	-60.580***	-42.185**	-51.636***
	(-1.242)	(-3.267)	(-3.664)	(-3.049)	(-2.431)	(-2.595)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	857	862	756	963	1,185	534
Adjusted R^2	0.414	0.322	0.307	0.413	0.363	0.389

This table reports regressions of CSR performance on family firms in split samples by whether firms in a strong or weak institutional environment. The sample is composed of 1,719 firm-year observations representing 335 unique firms over the period 2002-2011. The dependent variable is *CSR*, the overall CSR performance of a firm, equal to the average of environmental performance and social performance. *PRESS FREEDOM* is adjusted score of Freedom House's Freedom of the Press index. Higher score indicates more media independence. The index assesses the degree of print, broadcast, and internet freedom. *POLITICAL CONNECTIONS* is percentage of firms connected with a minister or a member of parliament, or a close relationship. *INVESTOR PROTECTION* is an index aggregating three indices: corruption, risk of contract repudiation, and risk of expropriation. Definitions and data sources for other variables are provided in Appendix A. All regressions include year, industry, and country fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. The superscript asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

CHAPTER 3

IS PRIVATIZATION SOCIALLY RESPONSIBLE?

3.1. Introduction

Privatization, the deliberate sale by a government of state-owned enterprises (SOEs) or assets to private economic agents (Megginson and Netter, 2001), has been the subject of renewed interest following the recent financial crisis amid extensive government participation in firms in need of support. Previous privatization studies shed light on both the determinants of privatization[7] and the post-privatization performance of newly privatized firms (NPFs).[8] However, the literature on the effects of privatization generally focuses on such effects in relation to specific stakeholders in NPFs –shareholders (domestic and foreign), creditors, and the state as a residual owner – rather than taking a broader social welfare perspective. This is surprising given 1) privatization is widely perceived to be costly to society as a whole[9], 2) former SOEs are often viewed as policy tools used to achieve political and/or social objectives and hence are first and foremost social enterprises,

[7] These include legal and political institutions, economic conditions, and capital market conditions (e.g., Bortolotti, Fantini, and Siniscalco, 2004; Boubakri, Cosset, and Guedhami, 2005a; Boubakri et al., 2007; Megginson et al., 2004).

[8] Post-privatization performance is evaluated in terms of profitability, leverage, dividends, corporate governance, cost of debt and equity, risk-taking, and investment efficiency (e.g., Borisova and Megginson, 2011; Boubakri and Cosset, 1998; Boubakri, Cosset, and Guedhami, 2005a, 2005b; Boubakri, Cosset, and Saffar, 2013; Chen et al., 2014; D'Souza and Megginson, 1999; Megginson, Nash, and van Randenborgh, 1994).

[9] For example, privatization may lead to a decrease in employment (Chong and López-de-Silanes, 2005; Dewenter and Malatesta, 1997), a decrease in income distribution (Birdsall and Nellis, 2003), and an increase in poverty (Bayliss, 2002). Accordingly, demonstrations and protests against privatization reforms have recently occurred in Thailand, Mexico, Pakistan, Italy, and Greece.

and 3) the state, the ultimate owner of these firms, is theoretically the guardian of social welfare. In this essay we aim to fill this void in the literature by assessing the social performance of NPFs.[10] Our approach is to compare the corporate social responsibility (CSR) performance of NPFs after privatization to that of their listed peers.

CSR refers to a firm's commitment to various stakeholders such as shareholders, employees, customers, the environment, and the broader community.[11] Prior evidence shows that higher firm-level CSR performance, which is typically based on measures of their environmental performance (e.g., energy use, CO_2 emissions, water recycling, waste recycling) and social performance (e.g., injury rate, training hours, women employees, donations), is associated with larger abnormal stock returns (e.g., Dimson, Karakas, and Li, 2014), lower idiosyncratic risk (e.g., Lee and Faff, 2009), lower probability of financial distress (e.g., Goss, 2009), lower cost of capital (e.g., El Ghoul et al., 2011), and better access to finance (e.g., Cheng, Ioannou, and Serafeim, 2014).[12] However, these studies focus on publicly traded companies – no prior study to date provides evidence on the CSR performance of NPFs. By examining the CSR activities of privatized firms, we shed light

[10] As a case in point, Megginson and Netter (2001, p. 382) raise important questions in their survey on privatization stating the following: Do most such programs actually cost SOE worker jobs? Are there gender-specific impacts relating to the total commercialization of state-owned enterprises, as might happen if privatization caused SOEs to shut down child care or other social services? Are worker training/retraining programs effective methods of dealing with worker redundancies, or should governments emphasize lump-sum severance packages when lay-offs are required? Do privatization programs create more jobs economy-wide than they destroy? These questions are not only vitally important to policy-makers, they are inherently interesting in their own right.

[11] See European Commission (EC): 2002, Green Book: Promoting a European Framework for Corporate Social Responsibility.

[12] This literature further suggests that CSR results in higher firm valuations by mitigating asymmetric information between firms and investors, since high CSR firms disclose more transparent and reliable information (Kim, Park and Wier, 2012), by inducing more analyst coverage and lower analyst forecast error (Dhaliwal et al., 2012), and by decreasing agency problems, since it leads managers to focus less on short-term gains in line with stockholders' interests and more on long-term profit-maximization in line with the interests of additional stakeholders (e.g., employees, consumers, suppliers, shareholders) (Freeman, 1984).

on the link between the government (as residual owner) and social responsibility, and we contribute to the debate on the costs and benefits of privatization, and in particular, on whether its high perceived social cost is justified.

We begin our analysis by testing two alternative hypotheses on NPFs' CSR activities. Our main hypothesis predicts that NPFs have higher CSR performance than their peers. Because CSR activities enhance firm value (Ferrell, Liang, and Renneboog, 2014; Orlitzky, Schmidt, and Rynes, 2003), former SOEs may engage in more CSR activities following privatization to avoid being at a competitive disadvantage compared to other listed firms. In addition, because CSR activities are reputation-increasing, governments may use their residual ownership to pressure NPFs to pursue CSR activities to promote and build their credibility, and to signal the firm's commitment to various stakeholders, reducing potential opposition to privatization.[13] Our alternative hypothesis predicts that NPFs do not have higher CSR performance than their peers. The shareholder theory of CSR, first put forward by Friedman (1970), holds that the sole social responsibility of a corporation is to generate profits for its shareholders. Under this view, CSR investment represents a misuse of resources that should be spent on positive NPV projects or returned to shareholders[14], and thus NPFs' managers will care less about supporting CSR investment than about pursuing profit-maximizing opportunities. In addition, because CSR is likely to increase NPFs' public scrutiny, shareholders of NPFs may argue against CSR investment,

[13] One feature of privatization programs is the prevalence of partial (rather than full) divestitures around the world, a direct implication of which is that the government remains a residual owner in NPFs (Bortolotti and Faccio, 2009; Boubakri, Cosset, and Guedhami, 2005b; Boubakri, Cosset, and Guedhami, 2009; Megginson, Nash and van Randenborgh, 1994). As such, whether through direct or indirect control mechanisms, the government can still affect the performance, value, and strategy of the firms.

[14] Indeed, Friedman (1970) even argues that the existence of CSR activities signals agency problems, whereby managers use CSR to support their own careers instead of maximizing returns to shareholders.

especially in the case of large NPFs operating in potentially environmentally sensitive industries.[15] In this case, the CSR performance of NPFs should be indistinguishable from that of other listed firms.

To test the above predictions, we follow Guedhami, Pittman, and Saffar (2009) and Boubakri, Cosset, and Saffar (2013) and employ a sample of 506 privatized firms -- the largest sample of privatized firms to date – as well as Thomson Reuters ASSET4 data on CSR performance. The merged sample comprises 10,502 firm-year observations from 41 countries over the period 2002-2010. Consistent with our main hypothesis, we find that NPFs have statistically significantly higher CSR performance than their peers. This effect is also economically significant: on average, privatized firms observe 8.9% higher CSR performance than other listed firms. Within the subsample of NPFs, we observe higher CSR performance in partial privatizations compared to full privatizations, where the state is no longer involved. This result suggests that governments use their residual ownership to pressure NPFs to invest in CSR to extract reputational benefits and to mitigate concerns about the welfare effects of the privatization program.

One concern with the above analysis is potential endogeneity of privatization decisions. For example, as Megginson and Netter (2001) note, governments may privatize the healthiest firms to make privatization "look good". Similarly, data may be more readily available for better-performing firms in more developed countries. To address this concern, we use propensity score matching to generate matching firms that are not privatized but have similar characteristics as the privatized firms in our sample. We continue to find that privatized firms have better CSR performance than their peers.

[15] We examine industry effects on the link between privatization and CSR in additional analysis.

After comparing the CSR performance of NPFs to that of other listed firms, we focus attention on our sample of NPFs and examine the impact of both post-privatization ownership structure (as a proxy for firm-level corporate governance) and country-level institutions (as a proxy for country-level corporate governance) on CSR. We consider three types of owners studied in the privatization literature, namely, the state, foreign investors, and employees. This investigation is motivated by prior evidence that CSR performance is associated with firms' ownership structure (Barnea and Rubin, 2010; Dam and Scholtens, 2012; Oh, Chang, and Martynov, 2011). In the privatization context, NPFs are likely to invest more in CSR when they have less residual state ownership and higher foreign and employee ownership stakes. Turning to the role of country-level governance, the privatization literature suggests that the institutional environment conditions the performance outcomes of different types of owners in NPFs (e.g., Aggarwal et al., 2011; Borisova et al., 2012; Boubakri, Cosset, and Saffar, 2013; Chen et al., 2014; Guedhami, Pittman, and Saffar, 2009). For example, foreign ownership is associated with higher investment efficiency in weaker institutional environments (Chen et al., 2014), and government ownership is negatively (positively) related to governance quality in civil law (common law) countries (Borisova et al., 2012). Given evidence that firm-level governance and country-level institutions can substitute for each other, we investigate whether the relationship between CSR and ownership structure is moderated by the quality of prevailing country-level institutions.

The results show that, in line with our expectations, state ownership (as proxied by state control and political connections) is negatively associated with CSR performance, while foreign and employee ownership are positively associated with CSR performance.

We also find that country-level institutions play a moderating role in the relationship between ownership structure and CSR performance, suggesting that the external corporate governance exerted by country-level institutions performs an important role in constraining governments from distorting the objectives of NPFs.

In a third set of tests, we examine how the interaction between ownership structure and CSR affects firm-level outcomes, in particular, the financial performance of NPFs as measured by firm value and the cost of equity financing. Prior literature shows that residual government ownership leads to a relatively higher cost of equity and debt (Ben-Nasr, Boubakri, and Cosset, 2012; Borisova and Megginson, 2011).[16] If CSR is a positive signal of firm quality, then the adverse effects of government ownership on firm value should decrease as NPFs engage in more CSR, leading investors to require a lower premium (i.e., cost of equity) and in turn driving valuations up.

The results of this analysis suggest that CSR performance mitigates the negative impact of state residual ownership on the financial performance of NPFs. Specifically, higher CSR performance decreases the negative impact of state ownership on the cost of equity, suggesting that the cost of state ownership in NPFs decreases with CSR investment by sending a positive signal to investors.

This essay contributes to the privatization literature by examining the social impact of privatization. To our knowledge, this is the first study to assess the CSR performance of NPFs. We conjecture that in contrast to SOEs, which do not typically take on the costs associated with CSR activities, privatization creates incentives for NPFs to invest in CSR.

[16] Borisova and Megginson (2011) in particular show that while, on average, credit spreads increase with government ownership, they are relatively lower for fully privatized firms where the government's ownership share is zero.

We find support for this hypothesis by showing that NPFs have higher CSR performance than their peers. This essay also contributes to the literature on the determinants of CSR by linking CSR to a macroeconomic policy that is politically driven, namely, privatization. In this sense, CSR investment in NPRs may be dependent on political will and government support, as suggested by the finding that CSR performance is higher in NPFs with state residual ownership. Finally, our essay contributes to the corporate finance literature by providing evidence on the impact of CSR on NPFs' financial performance. We find that higher CSR performance in NPFs is associated with higher firm value and lower equity financing costs, suggesting that CSR helps mitigate the agency costs and information asymmetry associated with residual state ownership (e.g., Boubakri, Cosset, and Saffar, 2013; Chen et al., 2014; Guedhami, Pittman, and Saffar, 2009).

Our findings have important implications for managers and policy makers. First, extending prior evidence that the privatization of state-owned firms is beneficial on economic grounds (see Megginson and Netter (2001) for a literature review), we show that it is also beneficial from a social perspective. Specifically, we find that NPFs have higher CSR performance than other publicly listed firms. This result should alleviate concerns that, after private owners take control of former SEOs, the exclusive goal of NPFs will be to maximize shareholders' profits with little regard for other firm stakeholders. We also show that residual state ownership has a social cost, as NPFs' CSR performance is negatively related to residual state ownership. This result implies that partial privatizations dampen the social benefits of privatization reform. However, foreign ownership is positively related to NPFs' CSR performance, and effective country-level institutions can mitigate the negative effect of residual state ownership on CSR performance. The

implication for policy makers is that openness to foreign investors in NPFs and strong corporate governance institutions can help NPFs benefit from CSR investment, which should be reflected in turn in their financial performance. While questions about the redistribution effects of privatization are beyond the scope of this essay, our results suggest that increased CSR investment following privatization results in social welfare-enhancing gains.

The reminder of the essay is organized as follows. Section 2 reviews prior literature and develops our hypotheses. Section 3 discusses our data and variables, and provides descriptive statistics for our sample. Section 4 presents our empirical analysis. Section 5 concludes the essay.

3.2. Literature Review and Hypotheses

3.2.1. Privatization and CSR

3.2.1.1. State-owned Enterprises and Social Performance

Classic public finance assumes that SOEs are social enterprises that serve to cure a market failure (Atkinson and Stiglitz, 1980; Shapiro and Willig, 1990) that private firms fail to address. Under this view, welfare-maximizing SOEs may be expected to engage in more CSR activities than their private counterparts. In reality, however, SOEs are used by the government officials that manage them to achieve political goals (Shleifer, 1998). Boycko, Shleifer, and Vishny (1993) show, for instance, that governments often suboptimally locate SOEs in remote regions, employ too many people, or subsidize prices, to help politicians win political support among voters rather than improve social welfare.[17]

[17] In many countries, state-owned oil companies are identified as a main source of pollution (Victor et al., 2011). A case in point is described in an article in the New York Times (March 21, 2013,) relating to China's

To reduce the inefficiency of SOEs, privatization reforms that transfer control and cash flow rights from governments to private investors have occurred worldwide over the past three decades.[18] Such changes in ownership are accompanied by a change in firm focus from pursuing political goals to profit maximization. Prior studies show that after government divestiture, performance improves significantly (Megginson, Nash, and Randenborgh, 1994; Boubakri and Cosset, 1998; D'souza and Megginson, 1999; Dewenter and Malatesta, 2001)[19]. Below we develop hypotheses on the consequences of such reorganization for CSR performance in particular.

3.2.1.2. NPFs and CSR

Extant empirical evidence shows that better CSR performance leads to larger abnormal stock returns (e.g., Dimson, Karakas, and Li, 2014), lower idiosyncratic risk (e.g., Lee and Faff, 2009), less likelihood of financial distress (e.g., Goss, 2009), lower cost of capital (e.g., El Ghoul et al., 2011), and improved access to external finance (e.g., Cheng, Ioannou, and Serafeim, 2014). Thus, the new private owners in NPFs may aggressively engage in CSR activities to increase the newly privatized firm's competitive position vis-à-vis other publicly listed firms.

Another reason NPFs may invest more in CSR activities stems from their ownership structure. It is often the case that the government remains a residual owner in

deep environmental problems. The article states that the country is still struggling to solve its pollution problems partly because "state-owned power companies have been similarly resistant. The companies regularly ignore government orders to upgrade coal-burning electricity plants, according to ministry data. And as with the oil companies, the power companies exert an outsize influence over environmental policy debates.

[18] Besides improving efficiency, there are other objectives of privatization: raising revenue for the state, reducing government interference in the economy, promoting wider ownership, increasing competition in the market, subjecting SOEs to market discipline, and developing a national capital market (Price Waterhouse, 1989 a, b; Megginson and Netter, 2001).

[19] See Megginson and Netter (2001) and Djankov and Murrell (2002) for thorough literature reviews on privatization.

NPFs. As a stakeholder, the government has incentives to pressure NPFs to engage in CSR activities. Privatization reform is fiercely opposed by those who view it as beneficial to politically connected investors and detrimental to employees, other investors, and society as a whole. This opposition, which is supported by evidence of job loss (Chong and López-de-Silanes, 2005; Dewenter and Malatesta, 1997) and increased poverty (Birdsall and Nellis, 2003; Bayliss, 2002) after divestiture, sometimes manifests in unrest.[20] The government may thus be interested in enhancing its reputation as being committed to market-oriented reforms that benefit society. One way to do so, and thereby mitigate concerns about social welfare following the reform, is to pressure NPFs to invest in CSR activities that increase social welfare. This is particularly likely to be the case when the government can transfer the costs of such activities to the firm's new private investors.

Taken together, the above arguments suggest that NPFs aggressively engage in CSR activities and hence exhibit higher CSR performance than their peers.

Hypothesis 1a*: NPFs have higher CSR performance than other publicly listed firms.*

Alternatively, it may be the case that NPFs do not exhibit higher CSR performance than other publicly listed firms. This conjecture derives from the shareholder theory of CSR of Friedman (1970). According to this view of CSR, the firm's sole social responsibility is to generate profits for its shareholders and thus corporate resources should be spent on value-enhancing projects rather than on CSR activities, which only benefit managers. Given that the focus of a firm's shareholders is to maximize profits, this theory suggests

[20] Sinn and Weichenrieder (1997) report that after six years of transition in Central and Eastern European countries, selling state assets to foreigners is often seen as selling the "family silver", which leads to resentment. For example, before Russia restricted the share of assets that can be purchased by foreigners, the local press claimed that foreigners were "robbing Russia", and the Polish trade union criticized foreign investors of introducing a "slave system".

that NPFs are less likely to make significant CSR investments. In addition, because CSR is likely to increase public scrutiny and monitoring, shareholders of NPFs may argue against investing in CSR activities, especially in the case of large NPFs operating in potentially environmentally harmful industries.

In summary, an alternative to Hypothesis 1a predicts that there is no difference in CSR performance between NPFs and other publicly listed companies:

Hypothesis 1b*: There is no difference in CSR performance between NPFs and other publicly listed firms.*

3.2.2 Ownership Structure, Country-Level Institutions, and CSR in NPFs

In most NPFs, owners comprise the state as residual owner, foreign and local investors, and employees (Boubakri, Cosset, and Guedhami, 2005b).[21] Since different types of owners have different incentives, a NPF's organizational structure is likely to affect its CSR performance.

With respect to state ownership, the privatization literature shows that performance improvements following the divesture of SOEs are less pronounced and even disappear when governments retain a stake in NPFs (e.g., Borisova et al., 2012; Boubakri and Cosset, 1998; Chen et al., 2014; D'Souza and Megginson, 1999; Megginson, Nash, and van Randenborgh, 1994). According to these studies, the negative impact of government ownership stems from the conflicting interests of the state versus other firm owners: while the latter seek to maximize performance and in turn profits, state officials typically have a political agenda that might lead them to make suboptimal decisions from shareholders' perspective. For instance, government officials may locate firms in regions where doing

[21] Using a sample of 209 privatized firms from 39 countries over the period 1980-2001, Boubakri, Cosset, and Guedhami (2005b) find that non-government ownership increases over time following privatization.

boosts employment and in turn their own political support. Thus, while firms that are privatized take on a profit-maximization orientation, residual ownership by the government leads to conflicting objectives that can distort investment decisions, including those related to CSR activities.

With respect to CSR, the government's cost of investing in CSR can be transferred to new shareholders in NPFs, that is, as state ownership in a firm decreases, CSR investment costs to the government decrease. In this case the government is likely to pressure firms to invest in CSR activities, as by doing so it can receive the reputational benefits without having to bear the full costs of CSR investment. We thus expect that higher residual government ownership in NPFs to be negatively related to CSR performance.

In contrast, we expect foreign ownership to be associated with higher CSR performance. Foreign investors' capital, monitoring practices, investment efficiency, and transparency (e.g., Aggarwal et al., 2011; Ferreira and Matos, 2008; Gillan and Starks, 2003; Guedhami, Pittman, and Saffar, 2009; Ben-Nasr, Boubakri, and Cosset, 2012; Chen et al., 2014) can help former SOEs restructure. The literature finds some evidence of a positive link between firm internationalization and CSR ratings (Attig et al., 2014; Brammer, Pavelin, and Porter, 2009; Strike, Gao, and Bansal, 2006) as well as between foreign ownership and CSR ratings (Oh, Chang, and Martynov, 2011). In the case of NPFs, foreign investors may have incentives to engage in CSR activities not only to enhance firm value, but also to signal they are not tunneling "national treasures" out of the firm's country. Accordingly, we expect foreign ownership in NPFs to be positively related to CSR performance.

With respect to employee ownership, most sales of SOEs involve a tranche of

ESOPs (Employee Stock Ownership Plans).[22] By allowing for employee ownership in NPFs, governments aim to mitigate opposition to the reform.[23] Empirical evidence on the effect of employee ownership on corporate performance in NPFs is scarce. A few notable exceptions are Smith, Cin, and Vodopivec (1997), who show that employee ownership is associated with increased value in Slovenia, and Boubakri, Cosset, and Guedhami (2005b), who find for a sample of 209 privatized firms from 39 countries that employee ownership in NPFs is positively related to firm performance.[24] These results suggest that enhanced worker incentives align their interests with those of shareholders, and hence lead to better productivity and performance, in NPFs. Focusing on CSR, employees constitute a major firm stakeholder, and hence feel more committed to their company when it invests in CSR initiatives. Thus, when given an ownership share in the company, employees are likely to push for CSR investment that will benefit them not only as employees but also as investors (since CSR increases firm reputation and in turn value). We therefore expect employee ownership in NPFs to be positively related to CSR performance.

The above discussion leads to our second hypothesis:

Hypothesis 2*: State (foreign/employee) ownership negatively (positively/positively) affects the CSR performance of NPFs.*

In addition to a firm's ownership structure, country-level institutions affect corporate governance (La Porta et al., 2000). In this essay we examine whether country-

[22] For example, countries as diverse as France, the UK, Egypt, Nigeria, Argentina, and Pakistan have made ESOPs a key element of their privatization programs.

[23] Employee ownership can help ensure the political viability of privatization, and reduce resistance to privatization by employees (Lee, 1991). Employee ownership may also signal that renationalization would be politically difficult (Luders, 1991).

[24] Similarly, Djankov (1999) finds a non-monotonic relation between employee ownership and productivity (positive at low (below 10%) and high ownership stakes (above 30%), negative at intermediate levels) in a sample of six newly independent countries (Russia, Ukraine, Georgia, Moldova, Kyrgyz, and Kazakhstan).

level institutions also affect the relationship between ownership structure and CSR performance in NPFs. Borisova et al. (2012) suggest that in countries with better investor protection, state ownership is more likely to be associated with firm and market support in times of crisis. Guedhami, Pittman, and Saffar (2009) further argue that government ownership is related to poor corporate governance incentives in countries with weak institutions, where government predation is more likely to occur (Durnev and Fauver, 2009) and investors' rights are less likely to be protected. These studies suggest that adverse effects of government ownership are mitigated in countries with a stronger institutional environment. Similarly, the literature shows that foreign institutions play a more important role in corporate governance and investment efficiency in countries with weaker institutions (Aggarwal et al., 2011; Chen et al., 2014). Based on these studies, we expect the relationship between ownership structure and CSR performance in NPFs to be moderated by the quality of a country's institutions. More formally:

Hypothesis 3*: The negative (positive/positive) effect of state (foreign/employee) ownership on the CSR performance of NPFs is moderated by country-level institutions.*

3.2.3. Financial Outcomes of CSR in NPFs

To further our understanding of the link between NPFs' ownership structure and CSR, we examine the effect on firm-level financial outcomes. In particular, we examine how the relation between residual state (foreign/employee) ownership and CSR affects firm valuation and the cost of equity capital.

As previously discussed, the privatization literature finds ample evidence of an adverse effect of residual government ownership in NPFs. Shleifer (1998), for example, suggests that while new investors seek to maximize profits, residual government owners

use NPFs to pursue political objectives, which reduces firm performance and value (Boubakri, Cosset, and Guedhami, 2005a, b). Prior research also documents a negative effect of residual government ownership on earnings quality (Ben-Nasr, Boubakri, and Cosset, 2015), transparency (Guedhami, Pittman, and Saffar, 2009), and the cost of equity and debt (Ben-Nasr, Boubakri, and Cosset, 2012; Borisova and Megginson, 2011). Also as previously discussed, foreign investors positively affect firm performance, as they provide managerial expertise, improve monitoring, and require greater transparency, and thus help a restructuring firm increase value. Although no evidence exists to our knowledge on the impact of employee ownership on NPFs' performance, we expect to it to result in higher productivity and in turn value since ownership rights align workers' interests with those of shareholders. Following similar reasoning, investors are expected to require a higher cost of capital from NPFs with high residual state ownership, but not for foreign or employee ownership.

Turning to the CSR literature, CSR performance is positively associated with stronger internal corporate governance (Jo and Harjoto, 2011), a lower likelihood of financial distress (e.g., Goss, 2009), increased access to financial capital (e.g., Cheng, Ioannou, and Serafeim, 2014), and higher abnormal returns (e.g., Dimson, Karakas, and Li, 2014). These results suggest that firm valuation is positively related to CSR performance. El Ghoul et al. (2011) provide direct evidence that CSR lowers the cost of capital.

Combining these two lines of argument, we expect CSR to mitigate the negative effect of government ownership on NPFs' valuation and cost of capital, that is, we expect high CSR performance to decrease the costs of residual state ownership in NPFs that are reflected in a lower valuation and higher cost of equity capital. Conversely, high CSR

performance is expected to amplify the positive effects of foreign and employee ownership on NPFs' valuation and cost of equity. This leads to our fourth hypothesis:

Hypothesis 4*: The negative (positive/positive) effect of state (foreign/employee) ownership on NPFs' valuation and cost of equity is mitigated (amplified) by high CSR performance.*

3.3. Sample and Summary Statistics

3.3.1. Sample Selection

To construct our sample, we begin by collecting data from several sources (see Appendix C). We obtain data on privatized firms from Guedhami, Pittman, and Saffar (2009) and Boubakri, Cosset, and Saffar (2013). To the best of our knowledge, this is the largest sample of privatized firms collected to date. Next, we hand-match the privatization dataset with firm-level financial data obtained from the Compustat Global database. We then merge the resulting dataset with CSR data obtained from Thomson Reuters ASSET4, which provides objective and transparent information on environmental, social, and governance (ESG) factors and analytical tools for professional investors. This information is collected from publicly available sources (e.g., annual reports, NGO websites, and CSR reports) and is updated biweekly. To construct the regression variables, we drop firms with insufficient financial data. We also drop countries and industries without privatized firms. The final sample contains 10,502 observations from 41 economies over the 2002-2010 period.

3.3.2. Key Variables

CSR variables. Following Ioannou and Serafeim (2012), we construct our primary

measure of a firm's CSR performance, *CSR*, as the average of its environmental performance (*EP*) and social performance (*SP*) scores. A firm's environmental performance score captures a company's impact on living and non-living natural systems, including the air, land, and water, and is based on its energy use, CO_2 emissions, waste recycling, and similar factors. A firm's social performance score measures the company's capacity to generate trust and loyalty with its workforce, customers, and society as a whole and is based on factors such as employee turnover, injury rate, training hours, percentage of women employees, and amount donated to charitable organizations.

Privatization and ownership variables. We use the dummy variable *PRIVATIZED* to indicate whether a firm is privatized. To capture state ownership in NPFs, we construct three proxies: *STATE,* the percentage of shares in a NPF held by the government, *CONTROL;* a dummy variable equal to 1 for privatized firms in which the state retains majority control (i.e., more than 50% of the firm's shares) following privatization and 0 otherwise; and *CONNECTED,* a dummy variable equal to 1 for politically connected firms and 0 otherwise.[25] In addition to state ownership, we also construct proxies for foreign ownership (*FOREIGN*) and employee ownership (*EMPLOYEES*), where *FOREIGN* and *EMPLOYEES* are the percentage of shares held by foreign investors and employees, respectively.

Firm-level control variables. Following prior studies (Barnea and Rubin, 2010; Attig et al., 2014), we include a number of firm-level variables to control for various factors that may affect CSR performance. In particular, we control for: *SIZE*, the natural logarithm

[25] We obtain data on political connections from Faccio (2006). A firm is recorded as politically connected if "at least one of its large shareholders (anyone controlling at least 10 percent of voting shares) or one of its top officers (CEO, president, vice-president, chairman, or secretary) is a member of parliament, a minister, or is closely related to a top politician or party" (p. 369).

of total assets; *AGE*, firm age measured as the fiscal year minus the listed year; *LEV*, the ratio of total debt to total assets; *ROA,* return on assets measured as the ratio of net income before extraordinary items to total assets; and *RDS*, the ratio of research and development expenses to total sales. To mitigate the impact of outliers, we winsorize all firm-level variables at the 1% and 99% levels. In addition to these firm-level variables, we control for country, industry, and year fixed effects in all of our regressions.

3.3.3. Summary Statistics

Table 3.1 summarizes our sample composition by country, industry, and year in Panels A to C, respectively. The full sample of 10,502 observations represents 2,075 unique firms over the period 2002-2010. Of these firms, 175 are privatized. In Panel A we see that privatized firms dominate the sample in Kazakhstan (100%), the Czech Republic (66.67%), Egypt (66.67%), and Hungary (66.67%). In contrast, several countries have few privatized firms, such as Japan (0.76%), Australia (1.51%), Hong Kong (1.79%), and Switzerland (1.85%). Using the Fama-French (1997) 12-industry classification in Panel B, we see that privatized firms appear to be diversified across industries, with Utilities having the highest percentage of privatized firms (31.25%) and Wholesale, Retail, and Some Services having the lowest (1.21%). In Panel C we find that the percentage of privatized firms is relatively stable over time, except for fewer observations in 2010.

Table 3.2 presents descriptive statistics (Panel A) and a correlation matrix (Panel B) for our key regression variables. In Panel A, we see that *CSR* ranges between 97.780 and 6.480, with an average of 55.465 and a standard deviation of 29.045, suggesting that there is considerable variation in CSR performance across sample firms. The mean value for *PRIVATIZED* is 0.074, which implies that 7.4% of sample observations correspond to

privatized firms. In Panel B, we find that *PRIVATIZED* is positively related to our proxies for CSR performance (*CSR, EP,* and *SP*), providing preliminary evidence that privatized firms tend to have higher CSR performance. The correlation coefficients between the key explanatory variables are low, indicating that multicollinearity is not likely to affect our regression results.

In Table 3.3, we conduct univariate tests of differences in means between NPFs and other publicly listed firms. The average *CSR* is 67.365 for privatized firms, compared to 55.589 for other publicly listed firms, with the difference significant at the 1% level. Similarly, privatized firms have significantly higher environmental and social performance than other firms. These results confirm the preliminary evidence in Table 3.2 that privatized firms tend to have higher CSR performance. However, this result does not control for other variables that could affect CSR. We further investigate such effects using multivariate analysis in the next section.

3.4. Empirical Results

3.4.1. CSR Performance of NPFs: Main Evidence

To shed further light on the impact of privatization on CSR performance, we start by examining the following specification:

$$CSR = a_0 + a_1\, PRIVATIZED + a_2\, Controls + a_3\, Fixed\ effects + e, \qquad (1)$$

where *CSR* is one of the three CSR proxies (*CSR, EP, SP), PRIVATIZED* is our dummy variable indicating whether a firm is privatized, *Controls* is a vector that contains the firm-specific control variables (*SIZE, AGE, LEV, ROA, RDS),* and *Fixed effects* is a vector that includes country, year, and industry fixed effects. Following Petersen (2009),

all of the regressions in this analysis cluster standard errors by firm and year.

Table 3.4 presents our main evidence on the relation between privatization and CSR performance. In Column 1, the dependent variable is *CSR,* which is the average of a firm's environmental and social performance scores. The coefficient on *PRIVATIZED* is positive and significant at the 1% level, suggesting that in line with Hypothesis 1a, privatized firms outperform other publicly listed firms in terms of CSR performance. This result is economically significant as well: given a mean *CSR* of 56.465 (Table 3.2, Panel A), the coefficient on *PRIVATIZED* of 5.012 implies that on average privatized firms have 8.9% greater CSR performance (from 56.465 to 61.477) than their peers. Turning to the control variables, the results show that firm size, age, ROA, and R&D investment are positively associated with CSR performance.

In Columns 2 and 3 we use environmental and social performance, respectively, as the dependent variable and again document a positive and significant coefficient on *PRIVATIZED*. These results complement the finding in Column 1 by showing that privatized firms are associated with higher environmental and social performance. In terms of economic significance, privatized firms observe 9.7% higher environmental performance (from 57.672 to 63.286) 8.0% higher social performance (from 55.257 to 59.667) than peer firms. In Columns 4 to 6 of Table 3.4, we repeat the analyses in Columns 1 to 3 controlling only for year and industry fixed effects, since using 41 country fixed effects reduces degrees of freedom. The results are similar to those in Columns 1 to 3.

In sum, consistent with our main hypothesis (Hypothesis 1a), our results show that privatized firms have better CSR performance than other publicly listed firms, both when we consider a firm's overall CSR performance and when we separately consider the

environmental and social dimensions of CSR performance.

If privatization is systematically related to differences in firm characteristics, the effect of privatization that we document above may be due at least in part to differences in firm characteristics. In our main regression analysis in Table 3.4, we control for variables such as size, age, leverage, ROA, and R&D investment to try to distinguish the effects of firm-specific characteristics from the effect of privatization. However, our results may be biased to the extent that privatization and these firm characteristics are endogenously determined. Megginson and Netter (2001), for instance, argue that governments may privatize the healthiest SOEs to make privatization "look good". It is therefore crucial that we properly account for such differences in our analyses.

In Table 3.3, we compare characteristics of privatized firms and other publicly listed firms. Privatized firms are larger and younger, and they have lower R&D investment, higher leverage, and higher ROA. To assess whether these differences influence our results, we use propensity score matching (PSM) to match each privatized firm with a control firm that has similar characteristics but is not privatized.

We first estimate propensity scores using a Probit model where the dependent variable is *PRIVATIZED* and the explanatory variables are as in Table 3.4, and match each privatized firm with another firm that has the closest score to the privatized firm. Panel A of Table 3.5.1 reports the results. The difference in *CSR* between privatized firms and matched control firms is positive and significant (*t*-statistic is 3.550). Next, in Panel B we compare characteristics of privatized firms and matched firms. The differences between privatized firms and matched firms are no longer significant, but NPFs still outperform on CSR performance. In Panel C we rerun the regression analysis using privatized firms and

matched firms. Similar to our main evidence in Table 3.4, the coefficients on *PRIVATIZED* are still positive and significant. All of these findings confirm the main results in Table 3.4, mitigating concerns that differences in firm characteristics may be the source of privatized firms' outperformance on CSR.

In Table 3.5.2, we rerun the tests in Table 3.5.1 using propensity scores based on an alternative Probit model in which we employ firm size and industry as explanatory variables (Faccio, Masulis, and McConnell, 2006). Since many privatized firms are large and monopolistic in one country, using too many explanatory variables may not give the best match for each privatized firm. The results are similar those to Table 3.5.1 and again support our main results.

3.4.2. Ownership Structure, Country-level Institutions, and CSR in NPFs

In this section, we extend our analysis to examine whether ownership structure and country-level institutions influence NPFs' CSR performance. To do so, we use the following specification:

$$CSR=b_0+b_1\ OWNERSHIP+b_2\ INSTITUTIONS$$
$$+b_3\ INSTITUTIONS*\ OWNERSHIP+b_4\ Controls+b_5\ Fixed\ effects\ +e, \quad (2)$$

where CSR is *CSR, OWNERSHIP* is one of our state, foreign, or employee ownership measures, *INSTITUTIONS* is a vector that contains country-level proxies for the institutional environment (discussed below), *Controls* is a vector that contains the usual firm-level control variables (*SIZE, AGE, LEV, ROA, RDS),* and *Fixed effects* is a vector that includes year and industry fixed effects. As before, the regressions in this analysis cluster standard errors by firm and year.

Our country-level proxies for the institutional environment are *RULE OF LAW,*

CORRUPTION, COMPETITION, STOCK MARKET, INDIVIDUALISM, and *PRESS.* The first of these measures, *RULE OF LAW,* comes from Worldwide Governance Indicators (WGI) and captures the perceived quality of contract enforcement, property rights, policing, and the courts, as well as the likelihood of crime and violence. We expect a county's regulatory quality to directly influence NPFs' CSR performance (Campbell, 2007; Ioannou and Serafeim, 2012). *CORRUPTION* also comes form WGI and captures perceptions of the extent to which public power is exercised for private gain. Ioannou and Serafeim (2012) show that firms are less likely to act in a socially responsible way in countries with higher corruption. Our third measure, *COMPETITION,* comes from World Competitiveness Yearbook (WCY) and captures whether the legislative system prevents unfair competition. A moderate degree of competition may induce firms to increase their CSR investment in an effort to increase their reputation, while intensive competition may lead firms to focus on increasing profits to help ensure their survival (Campbell, 2007). Next, *STOCK MARKET,* which also comes from WCY, captures the extent to which stock markets provide firms adequate financial capital. In countries with more developed stock markets, firms are less likely to be financially constrained and hence more likely to be socially responsible (Ioannou and Serafeim, 2012). Our fifth measure, *INDIVIDUALISM,* is Hofstede's (2001) individualism index, which captures the extent to which a country prefers a loosely knit social framework whereby individuals are expected to take care of themselves and their immediate families. CSR performance is expected to be higher in individualistic countries where firms are more likely to pursue CSR activities to meet stakeholders' expectations (Matten and Moon, 2008; Ioannou and Serafeim, 2012). Finally, *PRESS* comes from Freedom House and captures the degree of print, broadcast, and

internet freedom in a country. If the media lacks freedom and can be easily influenced by lobbying or political pressure, firms are less likely to be punished for unethical behavior or rewarded for socially responsible behavior and hence are less likely to engage in CSR activities. Except for *INDIVIDUALISM,* higher scores on the proxies for institutional quality imply a higher quality institutional environment.

In the first three panels of Table 3.6, we examine the effect of state ownership and country-level institutional quality on the CSR performance of NPFs. Panel A presents regression results using state ownership, the six institutional variables, and interactions between state ownership and the institutional variables. Consistent with Hypothesis 2, the coefficient on *STATE* is significantly negative, suggesting state ownership has a negative impact on CSR performance in NPFs. Further, consistent with Hypothesis 3, the coefficient on *INSTITUTIONS * STATE* is consistently significantly positive, suggesting that high quality country-level institutions moderate the negative relationship between state ownership and CSR. Panels B and C repeat these regressions using *CONTROL* and *CONNECTED*, respectively, rather than *STATE*. Similar to Panel A, the coefficients on *CONTROL* and *CONNECTED* are significantly negative, and the coefficients on *INSTITUTIONS * CONTROL* and *INSTITUTIONS * CONNECTED* are significantly positive. These results continue to suggest that the adverse effect of government ownership is mitigated by a higher quality institutional environment.

Panel D of Table 3.6 presents results from regressing CSR performance on foreign ownership, the institutional variables, and interactions between foreign ownership and the institutional variables. Consistent with Hypothesis 3, we find that the coefficient on *FOREIGN* is significantly positive, suggesting that foreign investors have a positive impact

on the CSR performance of NPFs. The coefficient on the interaction *INSTITUTIONS * FOREIGN* is consistently significantly negative, suggesting that high quality country-level institutions also moderate the relationship between foreign ownership and CSR.

Panel E of Table 3.6 presents results from regressing CSR performance on employee ownership, the institutional variables, and interactions between employee ownership and the institutional variables. Across all proxies for institutional quality except *INDIVIDUALISM*, we find that the coefficient on *EMPLOYEES* is significantly positive, suggesting that employee ownership has a positive effect on the CSR performance of NPFs. The coefficient on the interaction *INSTITUTIONS * EMPLOYEES* is consistently significantly negative, suggesting that country-level institutions moderate the relationship between employee ownership and CSR.

In summary, consistent with Hypothesis 2, the results in this section show that state ownership has a negative impact on CSR performance in NPFs, while foreign and employee ownership exhibit a positive association with CSR performance. In addition, consistent with Hypothesis 3, the relationship between ownership structure and CSR performance in NPFs is moderated by the quality of country-level institutions. These findings support prior literature suggesting that internal (i.e., firm-level) corporate governance and external (i.e., country-level) governance institutions complement each other. More importantly for our purposes, effective country-level institutions reduce the negative effect of residual state ownership on CSR performance in privatized firms.

3.4.3. Financial Outcomes of CSR in NPFs

The analysis above suggests that NPFs are more likely to engage in CSR activities than peer firms. This finding raises questions about why NPFs are willing to invest more

in CSR activities than other firms. Prior research suggests that firms with better CSR performance observe better financial performance, as CSR helps reduce agency costs and information asymmetry (Cheng, Ioannou, and Serafeim, 2014; Ferrell, Liang, and Renneboog, 2014). Prior work further suggests that state (foreign) ownership in NPFs is associated with lower (higher) post-privatization financial performance, as state (foreign) ownership reflects weaker (stronger) corporate governance and in turn more (less) information asymmetry (e.g., Boubakri, Cosset, and Saffar, 2013; Chen et al., 2014; Guedhami, Pittman, and Saffar, 2009). In this section we empirically examine the effect of post-privatization ownership structure and CSR performance on NPFs' financial performance using the following specification:

$$PERF = c_0 + c_1\, OWNERSHIP + c_2\, PCSR$$
$$+ c_3\, OWNERSHIP * PCSR + c_4\, Controls + c_5\, Fixed\ effects + e, \qquad (3)$$

where *PERF* is firm value as measured by market-to book ratio (*MTB*) or the cost of equity capital (*COE*)*, OWNERSHIP* is one of our state, foreign, or employee ownership measures, *PCSR* is predicted CSR performance, *Controls* is a vector of the usual firm-specific control variables (*SIZE, AGE, LEV, ROA, RDS),* and *Fixed effects* is a vector that contains year and industry fixed effects. In this analysis, we cluster standard errors by firm and year.

In Panel A of Table 3.7, we first examine the impact of CSR and ownership structure on firm value (*MTB*). Following Guedhami, Pittman, and Saffar (2014), we implement a two-stage estimation procedure. In the first stage, we predict CSR performance for each firm-year observation using model 1 in Table 3.4. In the second stage, we regress *MTB* on an NPF's predicted CSR performance (*PCSR*), *OWNERSHIP,* and the

interaction *OWNERSHIP * PCSR*. The results show that the coefficient on the interaction between state ownership (*STATE, CONTROL,* and *CONNECTED*) and *PCSR* is positive and significant. The coefficient on *EMPLOYEES * PCSR* is also significantly positive, while the coefficient on *FOREIGN * PCSR* is not significant. These results suggest that state ownership and employee ownership are valued at a premium in NPFs with higher CSR performance.

Recent research suggests that higher CSR scores are also associated with a lower cost of equity capital (Dhaliwal et al., 2011; El Ghoul et al., 2011). Accordingly, in Panel B of Table 3.7 we extend the above analysis by looking at the effect of CSR and ownership structure on NPFs' cost of equity capital (*COE*). Following prior studies (e.g., Hail and Leuz, 2006; El Ghoul et al., 2011), we construct *COE* as the average of four implied cost of equity capital measures: K_{GLS} of Gebhardt, Lee, and Swaminathan (2001), K_{CT} of Claus and Thomas (2001), K_{OJN} of Ohlson and Juettner-Nauroth (2005), and K_{MPEG} of Easton (2004). Appendix B provides details on the construction of these four measures. The results show that the coefficient on the interaction between state ownership (*STATE, CONTROL,* and *CONNECTED*) and *PCSR* is negative and significant, while the coefficients on *EMPLOYEES * PCSR* and *FOREIGN * PCSR* are not significant, suggesting that NPFs with residual state ownership that have higher CSR performance observe lower equity financing costs.

The results in this section support evidence in the privatization literature that state ownership is associated with lower financial performance (lower firm value and higher cost of capital), but also show that under high CSR performance, the negative impact of residual state ownership on NPFs' financial performance is reduced.

3.4.4. Additional Analyses

In this section, we conduct additional tests to shed further light on our findings and to address potential concerns about our analysis.

3.4.4.1. Social Performance of NPFs: Components

Our main results shows that NPFs outperform other publicly listed firms in terms of both environmental performance and social performance. However, compared to the environmental performance dimension of CSR, the social performance dimension encompasses a wider range of factors, including commitment to employees, responsibility to consumers, and contributions to the community. When we separately examine NPFs social performance along these sub-dimensions[26], we find that privatized firms have superior performance in the areas of community, employment quality, and product responsibility, implying that privatized firms show greater commitment to their consumers, employees, and the community. The results are presented in Table 3.8.

3.4.4.2. Fully versus Partially Privatized Firms

In Section 2, we argue that NPFs may invest more in CSR activities than their peers to improve their competitiveness and in turn increase profitability or to improve their reputation and in turn signal the firm's commitment to stakeholders. To disentangle these potential explanations, in Table 3.9, Panel A we split the sample into full and partial privatizations and compare the CSR performance of the two subsamples in univariate analysis. We find that partial privatizations outperform full privatizations. The difference is significant at the 1% level, implying that if the government is involved in privatized firms' decision-making, they will be pressured to engage in CSR activities to help the

[26] Definitions of each component of social performance are provided in Appendix C.

government achieve its reputational objectives. When we limit attention to partially privatized firms, we find that those firms in which the state retains majority control (i.e., an ownership share greater than 50%) have lower CSR performance, which suggests that governments are more likely to engage in CSR activities when they can transfer the costs of these activities to the firm's new outside shareholders. When we next compare fully privatized firms and other publicly traded firms, we find that NPFs still exhibit higher CSR performance than peer firms. Multivariate analysis in Panel C confirms the results of the univariate tests, with a positive and significant coefficient on *PARTIAL PRIVATIZED*.

3.4.4.3. Industry Effects

Prior literature suggests that the value of CSR activities is conditioned by industry characteristics. In particular, CSR is more valuable for firms in industries with high consumer sensitivity (Lev, Petrovits, and Radhakrishnan, 2010), but is less valuable for firms in industries with a poor reputation (Koh, Qian, and Wang, 2014). In this section we examine whether these industry characteristics affect the CSR performance of NPFs.

We first consider consumer sensitivity. Consumer satisfaction is positively associated with CSR investment, which enhances a firm's reputation (Brown and Dacin, 1997; Sen and Bhattacharya, 2001; Luo and Bhattacharya, 2006). Further, CSR is more important for firms that provide goods and services to individuals than for firms whose major customers are corporations and governments (Lev, Petrovits, and Radhakrishnan, 2010). We therefore expect NPFs to engage in more CSR activities when they are in industries with high consumer sensitivity. To test this conjecture, we follow Lev, Petrovits, and Radhakrishnan (2010) and classify as high consumer-sensitivity industries the

consumer goods and financial services industries[27]. We then separately examine the impact of privatization on high and low consumer-sensitivity industries. The results are reported in the first two columns of Table 3.10. We find that only those NPFs in high consumer-sensitivity industries outperform other publicly listed firms. There is no significant difference between NPFs in low consumer-sensitivity industries and other publicly listed firms.

We next consider the role of a negative industry reputation. For firms operating in an industry with a negative environmental or social image (e.g., chemicals, tobacco, or gaming), CSR engagement may be perceived as "blood money" (Godfrey, Merrill, and Hansen, 2009). Accordingly, CSR investment is less likely to increase firm value for these firms (Koh, Qian, and Wang, 2014). We therefore expect NPFs in industries with a negative reputation to invest less in CSR activities. To test this prediction, we first identify pollution-intensive stocks and "sin" stocks. Following Mani and Wheeler (1998) we define pollution-intensive stocks as firms in the iron and steel, nonferrous metals, industrial chemicals, petroleum refineries, nonmetallic mineral production, and pulp and paper industries[28], and following Hong and Kacperczyk (2009) we define sin stocks as firms in the alcohol, tobacco, and gaming industries[29]. We then conduct our regression analysis on the pollution-intensive and sin stock subsamples. The results are presented in Columns 3 to 6 of Table 3.10. We find that for NPFs in pollution-intensive or sin industries, CSR performance is

[27] Consumer goods: SIC 0000–0999, 2000–2399, 2500–2599, 2700–2799, 2830–2869, 3000–3219, 3420–3429, 3523, 3600–3669, 3700–3719, 3751, 3850–3879, 3880–3999, 4813, 4830–4899, 5000–5079, 5090–5099, 5130–5159, 5220–5999, 7000–7299, 7400–9999; Finance: SIC 6000-6999.

[28] Iron and steel = SIC 331, 332; nonferrous metals = SIC 333-336; industrial chemicals = SIC 281, 286; petroleum refineries = SIC 291-299; nonmetallic mineral production = SIC 324, 325, 327-329; and pulp and paper = SIC 261-263.

[29] Alcohol = SIC 2100-2199; tobacco = SIC 2080-2085; and gaming = NAICS 7132, 71312, 713210, 71329, 713290, 72112, 721120.

indistinguishable from that of other publicly listed firms. Thus, the result that NPFs have higher CSR performance than peer firms concentrates among NPFs operating in "clean" industries.

In sum, the evidence in this section suggests that the CSR performance of NPFs is conditioned by certain industry characteristics. In particular, the results show that NPFs will engage in CSR activities only when doing so can enhance their reputation and in turn firm value.

3.4.4.4. Endogeneity

In Section 4.1 we attempt to address endogeneity arising from selection bias by using the PSM approach. Here, we further address endogeneity concerns by using two-stage least squares (2SLS) and the Heckman (1979) sample selection model.

We first employ the 2SLS approach. In the first stage, we specify a Probit model of the probability of privatization as a function of firm and country characteristics. Because privatization is influenced by whether the country is ruled by a left-wing government (Bortolotti and Pinotti, 2008; Bortolotti and Faccio, 2009), we use left power (*LEFT POWER*) as an instrumental variable. The model also includes all the firm-level control variables and fixed effects employed above in our main regression. The first-stage regression results are reported in Column 1 of Table 3.11. The coefficient on *LEFT POWER* is significantly positively related to privatization, indicating that it is not a weak instrument. In the second stage, we regress CSR performance on predicted privatization and the usual set of control variables. The second-stage regression results, reported in Column 2 of Table 3.11, confirm that privatized firms have better CSR performance than other publicly listed firms.

We next use the Heckman sample selection model. Similar to the 2SLS model, in the first stage of the Heckman model we use the estimated privatization probabilities to measure the inverse Mills' ratio (λ), which is a correction for self-selection. Then, in the second stage, we regress CSR performance on the estimated privatization probabilities, the inverse Mills' ratio, and the control variables. The results of the Heckman model are presented in Column 3 of Table 3.11. We continue to observe that privatized firms have better CSR performance than other publicly listed firms. In sum, we consistently find that NPFs' higher CSR performance is robust to endogeneity concerns.

3.5. Conclusion

In this essay, we investigate the CSR performance of privatized firms. Using a large sample of 10,502 firm-year observations from 41 countries over the period 2002-2010, we find that CSR performance is significantly higher for NPFs in comparison to other publicly listed firms. This finding, which is robust to addressing endogeneity concerns, is consistent with NPFs investing heavily in CSR either to increase their competitiveness and in turn profitability or to increase their reputation and in turn signal the newly privatized firm's commitment to stakeholders. To disentangle these explanations, we compare partially and fully privatized firms and find that partially privatized firms have significantly higher CSR performance, which suggests that CSR investment is pushed by governments interested in the reputation benefits of CSR, particularly when they can transfer the costs of CSR investment to the firm's new owners.

We also examine the impact of ownership structure and country-level institutions on the CSR performance of NPFs. We find that state ownership (as captured by the state's

percentage ownership share, a majority control dummy, and a politically connected dummy) is negatively associated with CSR performance in NPFs, while foreign ownership and employee ownership are positively associated with CSR performance. However, strong country-level institutions moderate the effect of ownership structure on CSR performance.

Finally, we investigate the firm-level outcomes of NPFs' CSR activities. We find that high CSR performance helps mitigate the negative impact of state ownership on firm financial performance in NPFs. More specifically, NPFs with state residual ownership that have higher CSR performance observe higher firm value and lower equity financing.

This essay contributes to the privatization literature by showing that NPFs have higher CSR performance than other publicly listed firms. In addition, it allows to exploit the particular post-divestiture ownership structure to test the link between government, foreign, and employee ownership on CSR performance. To our knowledge, this is the first study to assess the CSR performance of NPFs. This essay also contributes to the literature on the determinants of CSR by linking CSR to a macroeconomic policy that is politically driven, namely, privatization. We show that CSR is dependent on political will and therefore government support is an important determinant of CSR activities. We also link CSR to firm ownership structure, as opposed to only macro (global or domestic) forces as is more common in the literature. Finally, our essay contributes to the corporate finance literature by providing evidence on the impact of CSR on firm financial performance in NPFs. We find that higher CSR performance helps mitigate the adverse effect of state ownership on firm performance.

While we provide strong evidence on the effect of privatization on CSR, there are limits to this study that arise from the nature of the data that we use. In short, the present

study provides cross-country evidence on state ownership and CSR in NPFs. With more data on state ownership, future research could examine how changes in state ownership affect CSR. Additionally, given the prevalence of state acquisitions around the world, it would be interesting to examine how these acquisitions affect CSR performance.

Table 3.1 Sample Composition

	Firms	Privatized Firms	Privatized Firms %	Obs	Privatized Obs	Privatized Obs %
Full Sample	2,075	175	8.43%	10,502	781	7.44%
Panel A: By Country						
Australia	265	4	1.51%	816	30	3.68%
Austria	19	6	31.58%	132	40	30.30%
Belgium	24	1	4.17%	175	6	3.43%
Brazil	44	4	9.09%	116	8	6.90%
China	40	14	35.00%	94	28	29.79%
Colombia	2	1	50.00%	5	2	40.00%
Czech Republic	3	2	66.67%	10	5	50.00%
Egypt	3	2	66.67%	6	3	50.00%
Finland	26	6	23.08%	189	33	17.46%
France	86	15	17.44%	600	87	14.50%
Germany	70	9	12.86%	473	47	9.94%
Greece	20	6	30.00%	129	38	29.46%
Hong Kong	56	1	1.79%	264	4	1.52%
Hungary	3	2	66.67%	8	3	37.50%
India	41	8	19.51%	100	16	16.00%
Indonesia	18	7	38.89%	35	10	28.57%
Ireland	17	1	5.88%	115	8	6.96%
Israel	13	5	38.46%	26	6	23.08%
Italy	47	12	25.53%	316	79	25.00%
Japan	394	3	0.76%	2,476	24	0.97%
Kazakhstan	1	1	100.00%	2	1	50.00%
Korea	59	4	6.78%	141	10	7.09%
Malaysia	36	2	5.56%	62	4	6.45%
Mexico	18	1	5.56%	59	2	3.39%
Morocco	2	1	50.00%	7	2	28.57%
Netherlands	39	1	2.56%	257	5	1.95%
New Zealand	10	4	40.00%	60	24	40.00%
Norway	19	3	15.79%	142	21	14.79%
Philippines	11	1	9.09%	18	1	5.56%
Poland	18	3	16.67%	35	6	17.14%
Portugal	12	6	50.00%	89	35	39.33%
Russia	28	1	3.57%	30	2	6.67%
Singapore	42	6	14.29%	235	32	13.62%
South Africa	39	2	5.13%	69	5	7.25%
Spain	49	8	16.33%	335	46	13.73%
Sweden	48	3	6.25%	361	21	5.82%
Switzerland	54	1	1.85%	351	8	2.28%
Taiwan	49	2	4.08%	103	4	3.88%
Thailand	16	1	6.25%	32	3	9.38%
Turkey	17	4	23.53%	46	8	17.39%
UK	317	11	3.47%	1,983	64	3.23%

Panel B: By Industry						
Business Equipment	167	3	1.80%	820	19	2.32%
Chemicals and Allied Products	93	3	3.23%	507	6	1.18%
Consumer Durables	68	2	2.94%	403	10	2.48%
Consumer NonDurables	131	7	5.34%	725	40	5.52%
Energy	119	16	13.45%	462	73	15.80%
Finance	458	33	7.21%	2,295	116	5.05%
Manufacturing	260	20	7.69%	1,499	92	6.14%
Telephone and Television Transmission	106	29	27.36%	501	133	26.55%
Utilities	96	30	31.25%	444	127	28.60%
Wholesale, Retail, and Some Services	165	2	1.21%	898	10	1.11%
Other	412	30	7.28%	1,948	155	7.96%
Panel C: By Year						
2002	405	48	11.85%	405	48	11.85%
2003	411	50	12.17%	411	50	12.17%
2004	913	70	7.67%	913	70	7.67%
2005	1,205	91	7.55%	1,205	91	7.55%
2006	1,223	95	7.77%	1,223	95	7.77%
2007	1,292	107	8.28%	1,292	107	8.28%
2008	1,442	146	10.12%	1,442	146	10.12%
2009	1,687	166	9.84%	1,687	166	9.84%
2010	1,924	8	0.42%	1,924	8	0.42%

This table presents the sample distribution by industry (Fama–French 12 industry groups), country, and year for the 10,502 observations representing 2,075 unique firms from 41 countries over the period

Table 3.2 Descriptive Statistics and Correlation Matrix

Panel A: Descriptive Statistics

	Mean	SD	Min	P25	P50	P75	Max
CSR	56.465	29.045	6.480	28.850	59.988	84.715	97.780
EP	57.672	31.201	9.210	23.870	64.790	88.950	97.180
SP	55.257	31.301	3.350	24.340	59.635	85.620	98.940
PRIVATIZED	0.074	0.262	0.000	0.000	0.000	0.000	1.000
SIZE	8.949	1.733	1.687	7.775	8.762	9.977	14.937
AGE	2.578	0.531	0.000	2.303	2.773	2.944	3.135
LEV	0.182	0.151	0.000	0.058	0.157	0.269	0.669
ROA	0.043	0.067	-0.251	0.010	0.036	0.071	0.276
RDS	0.013	0.032	0.000	0.000	0.000	0.010	0.281

Panel B: Correlation Matrix

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CSR	(1)	1.000								
EP	(2)	0.929***	1.000							
SP	(3)	0.930***	0.728***	1.000						
PRIVATIZED	(4)	0.106***	0.077***	0.120***	1.000					
SIZE	(5)	0.386***	0.345***	0.372***	0.120***	1.000				
AGE	(6)	0.218***	0.252***	0.152***	-0.084***	0.222***	1.000			
LEV	(7)	0.056***	0.041***	0.063***	0.082***	0.059***	-0.083***	1.000		
ROA	(8)	-0.012	-0.038***	0.016	0.028**	-0.219***	-0.097***	-0.167***	1.000	
RDS	(9)	0.123***	0.145***	0.084***	-0.026**	-0.100***	0.056***	-0.151***	-0.060***	1.000

This table reports descriptive statistics (Panel A) and Pearson correlation coefficients (Panel B) for the regression variables. The full sample comprises 10,502 observations representing 2,075 unique firms from 41 countries over the period 2002-2010. Definitions and data sources for the variables are provided in Appendix C. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3.3 Univariate Tests

	All Firms			Privatized Firms			Other Publicly Listed Firms			Privatized vs. Other
	N	Mean	SD	N	Mean	SD	N	Mean	SD	Mean(*t-statistics*)
CSR	10,502	56.465	29.045	781	67.365	25.583	9,721	55.589	29.130	10.963***
EP	10,502	57.672	31.201	781	66.182	27.492	9,721	56.989	31.381	7.946***
SP	10,502	55.257	31.301	781	68.549	27.354	9721	54.189	31.355	12.424***
SIZE	10,502	8.949	1.733	781	9.685	1.591	9,721	8.890	1.730	12.419***
AGE	10,502	2.578	0.531	781	2.420	0.508	9,721	2.590	0.531	-8.628***
LEV	10,502	0.182	0.151	781	0.226	0.156	9,721	0.179	0.150	8.460***
ROA	10,502	0.043	0.067	781	0.050	0.058	9,721	0.043	0.068	2.854***
RDS	10,502	0.013	0.032	781	0.010	0.035	9,721	0.013	0.032	-2.660***

This table presents univariate tests results for differences between privatized firms and other publicly listed firms. The full sample comprises 10,502 observations representing 2,075 unique firms from 41 countries over the period 2002-2010. Definitions and data sources for the variables are provided in Appendix C. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3.4 CSR Performance of NPFs: Main Evidence

	(1)	(2)	(3)	(4)	(5)	(6)
	CSR	*EP*	*SP*	*CSR*	*EP*	*SP*
PRIVATIZED	5.012***	5.614***	4.410***	4.736***	3.329	6.143***
	(3.383)	(3.313)	(2.792)	(2.731)	(1.579)	(3.544)
SIZE	9.620***	9.197***	10.043***	8.615***	8.231***	9.000***
	(25.249)	(22.884)	(24.940)	(19.998)	(19.515)	(18.220)
AGE	4.108***	4.766***	3.450***	4.379***	6.648***	2.110
	(4.502)	(4.848)	(3.517)	(3.237)	(4.723)	(1.509)
LEV	2.896	5.660	0.133	15.512***	15.279***	15.746***
	(0.904)	(1.621)	(0.041)	(4.397)	(3.931)	(4.289)
ROA	21.312***	18.626**	23.999***	33.933***	20.011*	47.854***
	(2.980)	(2.010)	(3.760)	(3.606)	(1.829)	(5.557)
RDS	51.511***	45.150**	57.872***	66.796***	62.479***	71.113***
	(3.041)	(2.396)	(3.146)	(3.779)	(3.166)	(3.609)
Constant	-45.041***	-45.424***	-44.659***	-28.814***	-28.000***	-29.628***
	(-6.618)	(-11.198)	(-4.786)	(-5.930)	(-5.765)	(-5.195)
Country FE	Yes	Yes	Yes	No	No	No
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,502	10,502	10,502	10,502	10,502	10,502
Adjusted R^2	0.444	0.406	0.417	0.331	0.335	0.259

This table reports regressions results of CSR performance on privatization. The full sample comprises 10,502 observations representing 2,075 unique firms from 41 countries over the period 2002-2010. Definitions and data sources for the variables are provided in Appendix C. All firm-level control variables are winsorized at the 1st and 99th percentiles. Columns 1 to 3 include country, year, and industry fixed effects. Columns 4 to 6 include year and industry fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3.5.1 Propensity Score Matching by All Control Variables

Panel A: PSM Results					
Sample	Treated	Controls	Difference	S.E.	T-stat
Unmatched	67.365	55.589	11.776	1.074	10.96
ATT	67.365	62.481	4.884	1.378	3.55

Panel B: PSM Sample							
	Privatized Firms			Matched Firms			Privatized vs. Matched
	N	Mean	SD	N	Mean	SD	Mean(*t-statistics*)
CSR	781	67.365	25.583	781	62.481	28.771	3.545***
EP	781	66.182	27.492	781	61.4	31.35	3.205***
SP	781	68.549	27.354	781	63.563	29.736	3.449***
SIZE	781	9.685	1.591	781	9.633	1.686	0.618
AGE	781	2.42	0.508	781	2.431	0.539	-0.401
LEV	781	0.226	0.156	781	0.222	0.158	0.537
ROA	781	0.05	0.058	781	0.049	0.06	0.418
RDS	781	0.01	0.035	781	0.011	0.034	-0.745

Panel C: Privatization and CSR - PSM Sample						
	(1)	(2)	(3)	(4)	(5)	(6)
	CSR	*EP*	*SP*	*CSR*	*EP*	*SP*
PRIVATIZED	5.074***	4.997***	5.151***	4.532***	4.510**	4.554**
	(3.564)	(3.120)	(3.341)	(2.725)	(2.418)	(2.579)
SIZE	9.562***	9.512***	9.612***	9.342***	9.406***	9.277***
	(12.503)	(12.045)	(11.751)	(13.264)	(12.407)	(12.066)
AGE	3.862**	3.317*	4.408**	8.277***	8.681***	7.874***
	(2.134)	(1.660)	(2.257)	(3.016)	(2.908)	(2.921)
LEV	-8.042	-5.849	-10.235	7.445	8.439	6.451
	(-1.209)	(-0.862)	(-1.368)	(0.988)	(1.006)	(0.862)
ROA	38.806***	24.194*	53.418***	18.443	2.132	34.754*
	(2.721)	(1.768)	(3.049)	(1.034)	(0.107)	(1.842)
RDS	-45.650**	-57.276**	-34.023	-43.810	-47.272	-40.348
	(-2.210)	(-2.338)	(-1.344)	(-1.269)	(-1.257)	(-1.014)
Constant	-95.400***	-100.302***	-90.499***	-46.660***	-49.687***	-43.632***
	(-10.935)	(-11.651)	(-8.400)	(-5.175)	(-5.454)	(-4.509)
Country FE	Yes	Yes	Yes	No	No	No
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,562	1,562	1,562	1,562	1,562	1,562
Adjusted R^2	0.507	0.495	0.436	0.377	0.38	0.302

This table reports propensity score matching results (Panel A), univariate tests using a matched sample (Panel B), and regression results using a matched sample (Panel C). The full sample comprises 10,502 observations representing 2,075 unique firms from 41 countries over the period 2002-2010. The matched sample consists of 1,562 observations. Definitions and data sources for the variables are provided in Appendix C. All firm-level control variables are winsorized at the 1st and 99th percentiles. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3.5.2 Propensity Score Matching by Size and Industry

Panel A: PSM Results					
Sample	Treated	Controls	Difference	S.E.	T-stat
Unmatched	67.365	55.589	11.776	1.074	10.960
ATT	67.365	59.862	7.504	1.376	5.450

Panel B: PSM Sample							
	Privatized Firms			Matched Firms			Privatized vs. Matched
	N	Mean	SD	N	Mean	SD	Mean(*t-statistics*)
CSR	781	67.365	25.583	781	59.862	28.693	5.455***
EP	781	66.182	27.492	781	60.760	30.732	3.675***
SP	781	68.549	27.354	781	58.963	31.241	6.451***
SIZE	781	9.685	1.591	781	9.576	1.657	1.316
AGE	781	2.420	0.508	781	2.581	0.543	-6.048***
LEV	781	0.226	0.156	781	0.217	0.160	1.089
ROA	781	0.050	0.058	781	0.042	0.058	2.808***
RDS	781	0.010	0.035	781	0.008	0.023	1.309

Panel C: Privatization and CSR - PSM Sample						
	(1)	(2)	(3)	(4)	(5)	(6)
	CSR	*EP*	*SP*	*CSR*	*EP*	*SP*
PRIVATIZED	8.219***	8.694***	7.743***	7.696***	5.621***	9.771***
	(4.734)	(4.742)	(3.558)	(4.472)	(2.912)	(5.021)
SIZE	9.481***	9.547***	9.415***	8.848***	8.989***	8.707***
	(18.168)	(19.740)	(13.881)	(14.929)	(16.497)	(11.081)
AGE	2.831	2.429	3.233	6.096**	7.297**	4.895*
	(1.299)	(1.014)	(1.435)	(2.115)	(2.312)	(1.735)
LEV	-6.859	-5.694	-8.024	8.906	9.154	8.659
	(-0.868)	(-0.702)	(-0.970)	(0.977)	(0.952)	(0.945)
ROA	33.105**	27.007*	39.203***	23.706	5.668	41.744***
	(2.515)	(1.820)	(2.769)	(1.562)	(0.321)	(2.710)
RDS	10.344	-5.570	26.258	28.297	17.283	39.312
	(0.328)	(-0.132)	(0.856)	(0.712)	(0.329)	(1.046)
Constant	-36.637***	-45.323***	-27.950***	-28.344***	-23.453***	-33.236**
	(-4.948)	(-6.179)	(-3.166)	(-2.783)	(-2.793)	(-2.435)
Country FE	Yes	Yes	Yes	No	No	No
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,562	1,562	1,562	1,562	1,562	1,562
Adjusted R^2	0.507	0.495	0.436	0.377	0.38	0.302

This table reports propensity score matching results (Panel A), univariate tests using a matched sample (Panel B), and regression results using a matched sample (Panel C). Propensity scores are estimated using Probit regressions of treatment status on firm size and industry fixed effects. The full sample comprises 10,502 observations representing 2,075 unique firms from 41 countries over the period 2002-2010. The matched sample consists of 1,562 observations. Definitions and data sources for the variables are provided in Appendix C. All firm-level control variables are winsorized at the 1st and 99th percentiles. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3.6 Ownership Structure, Country-level Institutions, and CSR in NPFs

Panel A: State Ownership and CSR

	(1)	(2)	(3)	(4)	(5)	(6)
	RULE OF LAW	*CORRUPTION*	*COMPETITION*	*STOCK MARKET*	*INDIVIDUALISM*	*PRESS*
STATE	-0.233***	-0.225***	-1.102***	-0.802***	-0.475***	-0.349*
	(-3.154)	(-3.609)	(-4.145)	(-4.223)	(-4.201)	(-1.945)
INSTITUTIONS	4.385	1.967	-1.740	-0.911	0.076	0.388***
	(1.301)	(0.786)	(-0.805)	(-0.663)	(0.886)	(3.234)
*INSTITUTIONS*STATE*	0.195***	0.191***	0.181***	0.136***	0.009***	0.005*
	(3.305)	(4.484)	(4.082)	(4.420)	(4.284)	(1.901)
SIZE	8.725***	8.728***	8.115***	7.807***	7.602***	8.762***
	(11.271)	(11.811)	(9.299)	(10.493)	(9.280)	(11.162)
AGE	2.818	3.362	6.592**	7.475***	5.109**	2.971
	(1.114)	(1.391)	(2.563)	(2.865)	(2.007)	(1.120)
LEV	2.950	1.867	3.025	5.244	-0.090	-2.452
	(0.331)	(0.205)	(0.311)	(0.516)	(-0.010)	(-0.310)
ROA	-7.102	-10.131	-13.621	-14.763	-14.335	5.376
	(-0.386)	(-0.528)	(-0.655)	(-0.705)	(-0.713)	(0.327)
RDS	-29.135	-25.937	-18.640	-22.909	-54.892*	-37.509
	(-0.931)	(-0.821)	(-0.594)	(-0.714)	(-1.935)	(-1.366)
Constant	-5.883	-3.489	7.774	3.029	-33.543***	-41.793***
	(-0.490)	(-0.288)	(0.381)	(0.201)	(-4.228)	(-3.486)
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	707	707	703	703	704	702
Adjusted R^2	0.399	0.397	0.362	0.354	0.384	0.44

This table reports regression results of CSR performance on ownership, institutions, and interactions between ownership and institutions in NPFs. Panels A to E presents results for state ownership, state control, political connections, foreign ownership, and employee ownership, respectively. The dependent variable is CSR performance. Definitions and data sources for the variables are provided in Appendix C. All firm-level control variables are winsorized at the 1st and 99th percentiles. All models include year and industry fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3.6—*Continued*

Panel B: State Control and CSR						
	(1)	(2)	(3)	(4)	(5)	(6)
	RULE OF LAW	*CORRUPTION*	*COMPETITION*	*STOCK*	*INDIVIDUALISM*	*PRESS*
CONTROL	-15.354***	-14.445***	-54.593***	-38.084***	-38.530***	-20.558**
	(-3.173)	(-3.485)	(-2.671)	(-2.982)	(-4.761)	(-2.006)
INSTITUTIONS	6.653**	4.038*	0.631	0.540	0.112	0.445***
	(2.378)	(1.859)	(0.349)	(0.424)	(1.367)	(4.235)
*INSTITUTIONS*CONTROL*	10.778***	10.377***	8.612**	5.997***	0.633***	0.243*
	(2.941)	(3.548)	(2.522)	(2.944)	(4.568)	(1.767)
SIZE	8.712***	8.719***	7.948***	7.762***	7.910***	8.719***
	(11.085)	(11.857)	(9.332)	(9.533)	(9.208)	(10.867)
AGE	2.534	3.193	6.198**	6.754**	4.182	2.920
	(0.988)	(1.298)	(2.367)	(2.427)	(1.510)	(1.072)
LEV	3.761	2.951	4.892	6.991	-0.878	-2.666
	(0.414)	(0.316)	(0.484)	(0.661)	(-0.092)	(-0.331)
ROA	-9.332	-12.552	-16.650	-16.998	-13.341	6.085
	(-0.500)	(-0.641)	(-0.779)	(-0.809)	(-0.704)	(0.374)
RDS	-37.538	-34.805	-34.540	-32.904	-51.908**	-40.333
	(-1.260)	(-1.162)	(-1.109)	(-1.064)	(-1.990)	(-1.507)
Constant	-8.077	-5.830	-4.766	-4.116	-35.241***	-45.231***
	(-0.725)	(-0.519)	(-0.272)	(-0.281)	(-4.603)	(-3.978)
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	707	707	703	703	704	702
Adjusted R^2	0.395	0.389	0.351	0.342	0.389	0.438

Table 3.6—*Continued*

Panel C: Political Connections and CSR						
	(1)	(2)	(3)	(4)	(5)	(6)
	RULE OF LAW	*CORRUPTION*	*COMPETITION*	*STOCK MARKET*	*INDIVIDUALISM*	*PRESS*
CONNECTED	0.205**	0.159**	0.651*	0.508***	0.331**	0.663**
	(2.181)	(2.028)	(1.911)	(2.722)	(2.120)	(2.482)
INSTITUTIONS	14.592***	10.815***	4.423**	3.291**	0.315***	0.702***
	(5.061)	(4.480)	(2.232)	(2.336)	(3.605)	(6.471)
*INSTITUTIONS*CONNECTED*	-0.225***	-0.183***	-0.116*	-0.094**	-0.006**	-0.010***
	(-2.874)	(-2.973)	(-1.891)	(-2.573)	(-2.131)	(-2.643)
SIZE	8.441***	8.494***	7.630***	7.533***	7.050***	8.095***
	(10.511)	(11.209)	(9.239)	(9.207)	(8.084)	(9.780)
AGE	3.622	3.924	7.664**	8.035**	7.648***	4.971**
	(1.336)	(1.407)	(2.579)	(2.379)	(2.618)	(2.037)
LEV	9.908	9.837	12.132	12.769	4.311	-1.480
	(0.982)	(0.931)	(1.052)	(1.072)	(0.405)	(-0.172)
ROA	-6.332	-9.314	-15.423	-17.132	-8.549	3.192
	(-0.333)	(-0.455)	(-0.693)	(-0.760)	(-0.418)	(0.194)
RDS	-38.113	-31.697	-34.259	-29.729	-70.350***	-41.535
	(-1.196)	(-0.996)	(-1.011)	(-0.952)	(-2.767)	(-1.567)
Constant	-20.822**	-16.661	-31.438*	-21.752	-45.667***	-59.560***
	(-2.094)	(-1.521)	(-1.778)	(-1.477)	(-5.416)	(-4.839)
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	707	707	703	703	704	702
Adjusted R^2	0.401	0.391	0.348	0.346	0.370	0.453

Table 3.6—*Continued*

Panel D: Foreign Ownership and CSR						
	(1)	(2)	(3)	(4)	(5)	(6)
	RULE OF LAW	*CORRUPTION*	*COMPETITION*	*STOCK MARKET*	*INDIVIDUALISM*	*PRESS*
CONNECTED	-14.711***	-13.584***	-51.293**	-38.555***	-36.468***	-20.933**
	(-3.052)	(-3.177)	(-2.336)	(-2.948)	(-4.589)	(-2.014)
INSTITUTIONS	6.314**	3.839*	0.225	0.401	0.109	0.455***
	(2.240)	(1.744)	(0.123)	(0.310)	(1.264)	(4.045)
INSTITUTIONS FOREIGN*	11.092***	10.439***	8.306**	6.315***	0.621***	0.254*
	(3.156)	(3.545)	(2.299)	(3.042)	(4.652)	(1.814)
SIZE	8.647***	8.646***	7.807***	7.688***	7.871***	8.697***
	(10.987)	(11.664)	(9.116)	(9.593)	(8.998)	(10.547)
AGE	3.025	3.721	7.027***	7.340***	5.135*	3.102
	(1.156)	(1.490)	(2.624)	(2.691)	(1.831)	(1.105)
LEV	2.537	1.761	3.446	5.613	-2.474	-5.009
	(0.293)	(0.197)	(0.361)	(0.566)	(-0.276)	(-0.664)
ROA	-5.532	-8.504	-12.086	-12.588	-9.262	12.301
	(-0.304)	(-0.450)	(-0.599)	(-0.643)	(-0.521)	(0.833)
RDS	-35.917	-33.076	-32.756	-31.102	-49.700*	-39.291
	(-1.201)	(-1.101)	(-1.053)	(-0.995)	(-1.908)	(-1.467)
Constant	-8.805	-6.802	-1.932	-2.028	-4.346	-40.956***
	(-0.778)	(-0.596)	(-0.254)	(-0.306)	(-1.138)	(-4.411)
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	699	699	695	695	696	694
Adjusted R^2	0.394	0.388	0.347	0.342	0.389	0.445

Table 3.6—*Continued*

Panel E: Employee Ownership and CSR						
	(1)	(2)	(3)	(4)	(5)	(6)
	RULE OF LAW	*CORRUPTION*	*COMPETITION*	*STOCK MARKET*	*INDIVIDUALISM*	*PRESS*
CONNECTED	3.694**	2.359*	10.143***	6.276***	1.013	3.933**
	(2.251)	(1.767)	(2.830)	(2.605)	(0.527)	(2.429)
INSTITUTIONS	10.623***	7.100***	2.649*	1.764	0.212**	0.534***
	(4.956)	(3.891)	(1.713)	(1.457)	(2.350)	(5.805)
INSTITUTIONS EMPLOYEES*	-2.619**	-1.630*	-1.571***	-1.065***	-0.018	-0.055**
	(-2.515)	(-1.922)	(-2.870)	(-2.646)	(-0.598)	(-2.376)
SIZE	8.322***	8.360***	7.427***	7.677***	7.344***	8.459***
	(10.912)	(11.360)	(9.477)	(8.626)	(7.935)	(10.864)
AGE	3.547	4.073	6.985**	7.716**	6.869**	4.492*
	(1.417)	(1.618)	(2.481)	(2.205)	(2.265)	(1.764)
LEV	7.060	8.021	10.233	12.182	4.984	-0.879
	(0.704)	(0.756)	(0.880)	(1.083)	(0.476)	(-0.103)
ROA	-8.482	-11.320	-19.037	-18.209	-6.852	10.169
	(-0.430)	(-0.545)	(-0.840)	(-0.826)	(-0.345)	(0.636)
RDS	-36.544	-31.590	-32.838	-30.783	-62.862**	-39.231
	(-1.189)	(-1.028)	(-1.025)	(-0.995)	(-2.534)	(-1.494)
Constant	-42.579***	-38.401***	-44.025***	-43.689***	-9.691	-47.568***
	(-5.592)	(-4.954)	(-3.513)	(-4.323)	(-0.839)	(-3.719)
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	704	704	700	700	701	699
Adjusted R^2	0.393	0.376	0.347	0.339	0.357	0.436

Table 3.7 Financial Outcomes of CSR in NPFs

Panel A: Firm Value					
	(1)	(2)	(3)	(4)	(5)
	STATE	*CONTROL*	*CONNECTED*	*FOREIGN*	*EMPLOYEES*
OWNERSHIP	-0.010***	-0.292	-0.372	-0.000	-0.064*
	(-2.988)	(-1.049)	(-1.346)	(-0.043)	(-1.681)
PCSR	0.014**	0.272*	0.232	0.119	0.056
	(2.040)	(1.724)	(1.293)	(0.940)	(0.482)
*OWNERSHIP *PCSR*	0.140***	6.656**	7.159**	-0.040	0.935*
	(3.022)	(1.981)	(2.141)	(-0.399)	(1.813)
SIZE	-0.205***	-2.332*	-2.005	-1.050	-0.540
	(-3.479)	(-1.782)	(-1.341)	(-1.000)	(-0.559)
AGE	-0.279***	-1.320**	-1.152	-0.710	-0.437
	(-3.233)	(-1.971)	(-1.608)	(-1.239)	(-0.846)
LEV	0.105	-1.922	-1.617	-0.706	-0.219
	(0.446)	(-1.519)	(-1.077)	(-0.745)	(-0.244)
ROA	6.292***	7.555***	7.477***	6.815***	6.564***
	(4.155)	(4.553)	(5.219)	(4.039)	(4.067)
RDS	2.300	10.985*	9.660	5.662	3.734
	(1.507)	(1.855)	(1.449)	(1.209)	(0.833)
RULE OF LAW	-0.198**	-2.681*	-2.304	-1.151	-0.573
	(-2.127)	(-1.769)	(-1.321)	(-0.957)	(-0.518)
Constant	3.409***	11.751**	10.429*	6.568	4.496
	(8.868)	(2.175)	(1.735)	(1.458)	(1.111)
Industry FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	707	707	699	704	704
Adjusted R^2	0.555	0.553	0.559	0.553	0.549

This table reports regression results of firm performance on ownership, predicted CSR (*PCSR*), and the interaction between ownership and predicted CSR in NPFs. The sample comprises 781 observations representing 175 unique privatized firms from 41 countries over the period 2002-2010. The dependent variable is *MTB* in Panel A, and *COE* in Panel B. *PCSR* is predicted using the control variables and fixed effects in Table 3.4. *OWNERSHIP *PCSR* is divided by 1000. Definitions and data sources for the variables are provided in Appendix C. All firm-level control variables are winsorized at the 1st and 99th percentiles. All models include year and industry fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3.7—*Continued*

Panel B: Cost of Equity Capital					
	(1)	(2)	(3)	(4)	(5)
	STATE	*CONTROL*	*CONNECTED*	*FOREIGN*	*EMPLOYEES*
OWNERSHIP	0.001***	0.031*	0.034**	0.000	-0.000
	(3.050)	(1.941)	(2.275)	(0.263)	(-0.018)
PCSR	0.000	0.000	0.000	0.000	0.000
	(0.650)	(0.778)	(0.669)	(0.262)	(0.176)
*OWNERSHIP *PCSR*	-0.008***	-0.365*	-0.444**	0.001	0.018
	(-3.302)	(-1.783)	(-2.195)	(0.137)	(0.286)
SIZE	-0.001	-0.002	-0.002	0.000	-0.000
	(-0.146)	(-0.375)	(-0.272)	(0.049)	(-0.021)
LEV	-0.007	-0.009	-0.009	-0.010	-0.010
	(-0.472)	(-0.583)	(-0.599)	(-0.649)	(-0.701)
ROA	-0.075**	-0.076**	-0.078**	-0.075**	-0.079**
	(-2.493)	(-2.584)	(-2.469)	(-2.269)	(-2.567)
LTG	0.001***	0.001***	0.001***	0.001***	0.001***
	(4.668)	(4.524)	(4.595)	(5.428)	(5.030)
DISP	0.002	0.002	0.002	0.002	0.002
	(1.346)	(1.268)	(1.233)	(1.225)	(1.252)
RULE OF LAW	0.001	-0.001	-0.000	0.000	0.001
	(0.111)	(-0.151)	(-0.049)	(0.032)	(0.151)
Constant	0.089***	0.099***	0.097***	0.092***	0.100***
	(4.084)	(4.812)	(4.409)	(4.263)	(4.497)
Industry FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	591	591	584	589	589
Adjusted R^2	0.313	0.310	0.310	0.307	0.311

Table 3.8 Social Performance of NPFs

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	COMMUNITY	*DIVERSITY & OPPORTUNITY*	*EMPLOYMENT QUALITY*	*HUMAN RIGHTS*	*HEALTH & SAFETY*	*PRODUCT RESPONSIBILITY*	*TRAINING & DEVELOPMENT*
PRIVATIZED	3.211*	2.686	5.644***	2.638	1.733	4.523**	2.007
	(1.858)	(1.580)	(3.406)	(1.549)	(1.118)	(2.267)	(1.343)
SIZE	8.487***	8.748***	6.074***	8.128***	6.849***	6.698***	7.966***
	(20.348)	(18.601)	(16.631)	(21.009)	(18.606)	(15.947)	(20.620)
AGE	3.211***	3.387***	2.230***	2.120**	3.875***	1.830*	2.103**
	(3.498)	(3.678)	(2.680)	(2.136)	(3.506)	(1.684)	(2.266)
LEV	-5.722*	0.121	2.083	1.067	1.953	-0.627	-1.217
	(-1.860)	(0.036)	(0.736)	(0.286)	(0.627)	(-0.168)	(-0.384)
ROA	15.367**	26.929***	31.056***	12.366**	24.919***	6.487	20.402***
	(2.090)	(4.033)	(5.803)	(1.981)	(4.319)	(1.059)	(2.734)
RDS	43.608**	61.692***	53.020***	58.861***	20.009	23.996	47.802***
	(2.411)	(3.697)	(3.772)	(3.214)	(1.147)	(1.445)	(2.673)
Constant	-22.423**	-43.452***	-13.381	-26.805***	-17.056**	-18.389	-17.366**
	(-2.400)	(-8.426)	(-0.720)	(-3.771)	(-2.112)	(-1.093)	(-1.972)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,502	10,502	10,502	10,502	10,502	10,502	10,502
Adjusted R^2	0.256	0.294	0.320	0.342	0.368	0.217	0.335

This table reports regression results of social performance on privatization. The dependent variables are the following components of social performance: (1) *COMMUNITY*, (2) *DIVERSITY & OPPORTUNITY*, (3) *EMPLOYMENT QUALITY*, (4) *HUMAN RIGHTS*, (5) *HEALTH & SAFETY*, (6) *PRODUCT RESPONSIBILITY*, and (7) *TRAINING & DEVELOPMENT*. Definitions and data sources for the variables are provided in Appendix C. All firm-level control variables are winsorized at the 1st and 99th percentiles. All regressions control firm-level variables and country, industry and year fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3.9 Privatization and CSR: Fully versus Partially Privatized Firms

Panel A: Univariate Tests																		
	All Privatized Firms			Fully Privatized			Partially Privatized			Partially NPFs 0-50			Partially NPFs >=50			Other Publicly Listed		
	(1)			(2)			(3)			(4)			(5)			(6)		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
CSR	70	68.97	24.62	35	66.01	24.89	355	71.904	24.032	22	73.76	22.80	13	68.69	25.79	972	55.58	29.13
EP	70	68.10	26.52	35	65.61	26.95	355	70.572	25.896	22	71.80	25.66	13	68.44	26.26	972	56.98	31.38
SP	70	69.83	26.57	35	66.41	26.85	355	73.236	25.873	22	75.72	24.16	13	68.93	28.16	972	54.18	31.35
SIZ	70	9.649	1.603	35	9.373	1.677	355	9.923	1.479	22	9.873	1.551	13	10.00	1.347	972	8.89	1.73
AG	70	2.423	0.495	35	2.434	0.518	355	2.411	0.472	22	2.55	0.403	13	2.17	0.486	972	2.59	0.531
LEV	70	0.224	0.155	35	0.25	0.166	355	0.198	0.138	22	0.197	0.132	13	0.2	0.148	972	0.179	0.15
RO	70	0.049	0.056	35	0.049	0.055	355	0.049	0.058	22	0.047	0.06	13	0.053	0.053	972	0.043	0.068
RDS	70	0.011	0.037	35	0.011	0.041	355	0.01	0.033	22	0.014	0.041	13	0.003	0.004	972	0.013	0.032

Differences					
	(2) vs. (3)	(2) vs. (4)	(2) vs. (5)	(4) vs. (5)	(2) vs. (6)
	Mean(*t-statistics*)				
CSR	-3.202***	-3.767***	-1.038	1.923*	6.626***
EP	-2.495***	-2.741***	-1.031	1.177	5.088***
SP	-3.441***	-4.221***	-0.904	2.396**	7.218***
SIZE	-4.621***	-3.594***	-3.880***	-0.831	5.154***
AGE	0.62	-2.854***	5.048***	7.932***	-5.424***
LEV	4.552***	4.063***	3.044***	-0.189	8.770***
ROA	0.067	0.554	-0.6882	-1.033	3.006***
RDS	0.62	-0.645	2.402**	3.017***	-0.817***

Table 3.9—*Continued*

Panel B: Regressions Results			
	(1)	(2)	(3)
	CSR	*EP*	*SP*
PARTIALLY PRIVATIZED	5.338**	4.283*	6.393**
	(2.077)	(1.690)	(2.123)
SIZE	7.813***	7.716***	7.910***
	(8.209)	(8.628)	(6.354)
AGE	1.874	-2.567	6.316*
	(0.645)	(-0.832)	(1.711)
LEV	-13.746*	-13.279	-14.213
	(-1.716)	(-1.510)	(-1.585)
ROA	6.464	-9.556	22.484
	(0.330)	(-0.593)	(0.821)
RDS	-37.906**	-47.934*	-27.878
	(-1.988)	(-1.698)	(-0.984)
Constant	41.064***	41.306***	40.822***
	(3.763)	(5.209)	(2.647)
Country FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	707	707	707
Adjusted R^2	0.526	0.532	0.440

This table compares CSR performance between fully privatized firms and partial privatized firms. Panel A presents univariate tests of differences across fully privatized firms, partial privatized firms, partially privatized firms with state ownership between 0 and 50%, partially privatized firms with the state ownership larger than 50%, and other publicly listed firms. Panel B presents regression results of CSR performance on partial privatization. *PARTIALLY PRIVATIZED* is a dummy variable equal to 1 if state ownership is not zero. Definitions and data sources for the variables are provided in Appendix C. All firm-level control variables are winsorized at the 1st and 99th percentiles. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3.10 Privatization and CSR: The Role of Industry

	(1)	(2)	(3)	(4)	(5)	(6)
	Consumer-Sensitive		Pollution-Intensive		Sin Stocks	
	Yes	No	Yes	No	Yes	No
PRIVATIZED	6.956***	2.338	-3.472	6.309***	5.681	5.078***
	(2.669)	(1.416)	(-1.112)	(3.790)	(0.699)	(3.427)
SIZE	8.886***	10.938***	9.061***	9.540***	11.723***	9.589***
	(19.171)	(21.871)	(5.314)	(25.018)	(3.813)	(25.260)
AGE	4.258***	3.573***	-0.179	4.414***	-4.493	4.230***
	(3.472)	(2.906)	(-0.059)	(4.594)	(-0.627)	(4.749)
LEV	1.722	-1.408	14.407	2.593	-5.652	3.072
	(0.419)	(-0.316)	(0.821)	(0.769)	(-0.467)	(0.945)
ROA	32.196***	8.638	9.632	21.483***	73.844**	19.523***
	(3.579)	(1.119)	(0.375)	(3.086)	(2.182)	(2.757)
RDS	96.096**	48.211***	-4.909	47.598***	464.347	48.144***
	(2.042)	(2.917)	(-0.090)	(2.765)	(1.074)	(2.870)
Constant	-43.156***	-78.930***	-26.494*	-50.682***	-58.243**	-62.857***
	(-5.436)	(-9.291)	(-1.715)	(-12.973)	(-2.540)	(-9.179)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,652	4,850	734	9,768	234	10,268
Adjusted R^2	0.475	0.421	0.370	0.448	0.674	0.446

This table reports the regression results of privatization and CSR by industry groups. The dependent variable is CSR performance. High consumer-sensitivity industries are consumer goods and financial services industries; other industries are classified as low consumer-sensitivity industries. Pollution-intensive industries include: iron and steel, nonferrous metals, industrial chemical, petroleum refineries, nonmetallic mineral production, and pulp and paper. Sin stocks include alcohol, tobacco, and gaming stocks. Definitions and data sources for the variables are provided in Appendix C. All firm-level control variables are winsorized at the 1st and 99th percentiles. All regressions control for country, industry, and year fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3.11 Privatization and CSR: Endogeneity

	(1)	(2)	(3)
	First Stage	2SLS	Heckman
PRIVATIZED		16.427***	18.671**
		(3.442)	(2.108)
LEFT POWER	0.780***		
	(9.717)		
SIZE	0.208***	5.308***	8.299***
	(15.689)	(5.420)	(18.689)
AGE	-0.271***	9.722***	4.918***
	(-7.878)	(8.001)	(4.206)
LEV	0.553***	5.741	14.895***
	(3.853)	(1.107)	(4.028)
ROA	1.678***	1.223	31.305***
	(4.699)	(0.107)	(3.420)
RDS	3.187***	17.835	62.628***
	(3.261)	(0.847)	(3.559)
λ			-7.659*
			(-1.667)
Constant	-4.416***	52.067***	-31.195***
	(-20.490)	(2.663)	(-7.158)
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	10,502	10,502	10,502
Adjusted R^2	0.2218	0.341	0.331

This table reports results of two-stage least squares (2SLS) and Heckman sample selection analyses that address endogeneity of privatization decisions. Column 1 reports results from the first-stage regression. The instrument is *LEFT POWER*. Columns 2 and 3 present second-stage results of the 2SLS and Heckman models, respectively. Definitions and data sources for the variables are provided in Appendix C. All firm-level control variables are winsorized at the 1st and 99th percentiles. All regressions control for industry and year fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

CHAPTER 4

CROSS-LISTING AND CORPORATE SOCIAL RESPONSIBILITY

4.1. Introduction

An extensive literature documents the benefits that non-US firms derive from cross-listing in U.S. stock markets.[30] Compared with their domestic peers, cross-listed firms have increased access to capital (e.g., Lins, Strickland, and Zenner, 2005), a broader shareholder base and greater stock liquidity (e.g., Foerster and Karolyi, 1999), a more transparent information environment (e.g., Lang, Lins, and Miller, 2004), and better corporate governance (e.g., Reese and Weisbach, 2002). However, no study to date explores the social impact of cross-listing. As Karolyi (2012) notes, "This is surprising given the preponderance of evidence of the broader consequences from improved governance practices available in the Finance literature". In this essay we address this void in the literature by examining the dynamics of cross-listing and corporate social responsibility (CSR). Particularly, we investigate whether and how cross-listing influences firms' CSR performance.

CSR is corporate social or environmental behavior that goes beyond the legal or regulatory requirements faced by the company (Kitzmueller and Shimshack, 2012). CSR has become an important business practice in recent years. For instance, a recent survey by consulting firm EPG (2015) shows that the annual average spent on CSR by Fortune Global

[30] See Karolyi (2012) for a recent survey of cross-listing studies.

500 companies is over $19.9 billion in 2011-2013, and a study by KPMG (2013) documents that 93 percent of the world's largest 250 companies now report their CSR investments either in standalone reports or as part of their annual financial reports. Further, Nielsen's 2014 global survey on CSR shows that more than two-thirds (67%) of respondents prefer to work for a socially responsible company, and more than half (55%) are willing to pay extra for products and services from companies that are committed to a positive social and environmental impact.

There are two views of CSR in the literature. The negative view holds that CSR investment signals the presence of agency problems in a firm (Friedman, 1970). The rationale behind this view is that insiders (managers or controlling shareholders) invest in CSR activities only to enhance their reputation and careers at the expense of shareholders (Benabou and Tirole, 2010; Barnea and Rubin, 2010). The negative view of CSR therefore suggests that CSR performance is likely to be lower in cross-listed companies, because the increase in monitoring after cross-listing (e.g., Coffee, 1999, 2002; Stulz, 1999; Reese and Weisbach, 2002; Doidge, Karolyi, and Stulz, 2004) decreases the private benefits that insiders can derive from CSR activities.

The positive view of CSR, in contrast, considers CSR as a strategic tool that can be used to address stakeholder concerns and maximize shareholder wealth (Benabou and Tirole, 2010). In line with this view, prior work shows that superior CSR performance is associated with larger abnormal stock returns (e.g., Dimson, Karakaş and Li, 2014), lower idiosyncratic risk (e.g., Lee and Faff, 2009), a lower likelihood of financial distress (e.g., Goss, 2009), reduced cost of capital (e.g., El Ghoul et al., 2011; Ng and Rezaee, 2015), higher levels of government subsidies (Lin et al., 2015) and greater access to finance (e.g.,

Cheng, Ioannou, and Serafeim, 2014). Based on this view of CSR, the tighter corporate governance that follows cross-listing induces managers to boost CSR investment to increase the firm's competitive advantage (Jo and Harjoto, 2012) and decrease its regulatory and litigation risk (Seetharaman, Gul, and Lynn, 2002; Koh, Qian, and Wang, 2014; Hong and Liskovich, 2015), all of which suggest that CSR performance is higher in cross-listed companies compared to their domestic counter-parts.

To investigate the dynamics between cross-listing and CSR, we collect cross-listing data from the websites of the major depositaries of American Depository Receipts (ADRs), and we gather CSR data from Thomson Reuters' ASSET4. Our sample comprises 11,594 firm-year observations from 54 countries over the period 2002-2011. Consistent with the positive view of CSR, we find that cross-listing is positively associated with CSR performance – i.e., foreign firms listed on U.S. stock markets have higher CSR performance than their non-cross-listed domestic counterparts. This positive relation holds for both components of CSR performance, namely, environmental performance and social performance,[31] and for all four ADR program types.[32]

A possible concern with our main analysis above is potential endogeneity of cross-listing decisions, as socially responsible firms may be more likely to cross-list. It is also possible that the cross-listing decision and CSR engagement are both affected by common (omitted) firm characteristics. To address these concerns, we employ two-stage least

[31] The environmental performance component of CSR measures a company's impact on living and non-living natural systems including air, land, and water, as well as complete eco-systems. The social performance component of CSR measures a company's capacity to generate trust and loyalty with its workforce, customers, and society through the use of best management practices (ASSET4, Thomson Reuters).

[32] Foreign firms cross-list in the U.S. through one of four ADR programs (Level I, Level II, Level III, and Rule144A), which are associated with different regulatory requirements and capital-raising capacity. We explore the differences between these programs in more detail below.

squares (2SLS) estimation, a Heckman selection model, and propensity score matching (PSM). The results using all three approaches provide additional evidence of a positive relation between cross-listing and CSR. To further ensure that the increase in CSR performance is indeed due to cross-listing, and to mitigate self-selection concerns, we examine the dynamics (change) in CSR performance around cross-listing and delisting events for the sub-sample of cross-listed firms. We find that CSR increases (decreases) significantly after cross-listing in (delisting from) the U.S. market. We also observe that CSR performance increases with the number of years since cross-listing. These findings enhance our confidence that the increase in foreign firms' CSR performance is indeed due to cross-listing in the U.S.

To deepen our analysis, we next examine several factors likely to condition the relation between cross-listing and CSR. We first investigate the effect of home country institutions on the CSR performance of cross-listed firms. We find that the positive impact of cross-listing on CSR performance is larger for firms from countries with weaker institutions. This result is consistent with the bonding theory of cross-listing, holding that firms from countries with weak institutions benefit more from cross-listing in the U.S. (Reese and Weisbach, 2002; Doidge, Karolyi, and Stulz, 2004). We also investigate the effect of cross-listing in venues other than the U.S. and find no significant impact of these cross-listings on CSR performance, suggesting that U.S. markets subject cross-listed firms to a relatively stronger regulatory and monitoring environment (Doidge, Karolyi, and Stulz, 2009). To directly test the litigation risk explanation, we investigate the CSR performance of cross-listed foreign firms that operate in industries with higher litigation risk. If these firms invest in CSR to reduce the costs of litigation (Koh, Qian, and Wang, 2014; Hong

and Liskovich, 2015), we expect to observe higher CSR performance in industries that face higher litigation risk. The results are in line with our expectation.

Finally, we examine the value implications of the CSR performance improvement associated with cross-listing. Providing further support for the positive view of CSR, we find that cross-listed firms with better CSR performance exhibit higher valuation. In other words, a channel that allows cross-listed firms to achieve higher valuation is through improved CSR performance post- cross-listing.

This essay contributes to three strands of literature using a unified framework. First, our results add to the literature on cross-listing by providing the first evidence, to the best of our knowledge, on the social impact[33] of listing on foreign markets and the dynamics of cross-listing and CSR. In particular, we find that cross-listed firms have better CSR performance than their non-cross-listed domestic peers. This result extends prior literature providing evidence that cross-listing improves firms' financial performance by showing that cross-listing also improves firms' social performance. Our results also contribute to this literature by providing support for the bonding hypothesis (Reese and Weisbach, 2002; Doidge, Karolyi, and Stulz, 2004), which posits that cross-listing increases CSR performance through improved corporate governance, and by showing that firms' social performance is larger for cross-listed firms in industries with higher litigation risk and from countries with weaker institutions. Second, we add to the literature on CSR by providing support for the positive view of CSR in an international setting as we focus on foreign firms cross-listed in the U.S. We document that investors place higher value on cross-listed firms with higher CSR performance. Third, we provide additional insights on the link

[33] It is captured here by the social responsibility of cross-listed firms.

between firm-level CSR performance and country-level institutions (Jackson and Apostolakou, 2010; Ioannou and Serafeim, 2012) by showing that a *change* in the institutional setting (rather than the prevailing state) can materially affect firms' CSR performance. This result suggests that convergence in corporate governance as well as CSR practices can be made possible by cross-listing in U.S. markets.

The remainder of the essay is organized as follows. Section 2 reviews related literature and develops our hypotheses. Section 3 discusses our data and variables, and provides the descriptive sample statistics. Section 4 presents the results. Section 5 concludes the essay.

4.2. Related Literature and Hypotheses

4.2.1. Cross-listing and bonding theory

The bonding theory of cross-listing (Coffee, 1999, 2002; Stulz, 1999) holds that cross-listing "bonds" managers and controlling shareholders, as it subjects them to a stricter legal and regulatory environment and thus makes it harder for them to extract private benefits.[34] This in turn is likely to ease firms' access to external financing. Coffee (2002) highlights three mechanisms through which cross-listing can enhance investor protection: (1) the enforcement powers of the SEC, (2) the threat of shareholder litigation, and (3) the information disclosure requirements of the SEC as well as the reconciliation of financial statements with U.S. Generally Accepted Accounting Principles (GAAP) (for exchange listings).

[34] The theoretical literature on cross-listing proposes numerous explanations for why firms choose to cross-list in U.S. stock markets. However, as we discuss below, the bonding theory has received empirical support and thus is a dominant explanation. See Karolyi (2006, 2012) for comprehensive literature reviews.

Several empirical studies find support for the bonding hypothesis. For instance, Reese and Weisbach (2002) show that foreign firms listing in the U.S. increase equity issues after cross-listing, especially firms originating from countries with weak investor protection. Similarly, Doidge, Karolyi, and Stulz (2004) find that cross-listed firms enjoy a premium of 16.5% compared to their domestic peers, with this premium higher for firms that list on major U.S. exchanges and for firms from countries with weak investor rights. Doidge (2004) further shows that the voting premiums of dual-class shares in cross-listed firms decline substantially following cross-listing. More recently, King and Segal (2009) show that better investor protection is the main driver of firms' value premium in the long run. Taken together, this evidence suggests that controlling shareholders and managers in cross-listed firms face increased monitoring and are less likely to expropriate minority shareholders after listing in U.S. markets. As a result, these firms exhibit better corporate governance and are valued more highly by investors.

The implications of the bonding theory of cross-listing on CSR performance depends on whether CSR is taken to be value-increasing (the positive view of CSR) or a signal of agency problems (the negative view of CSR), as we discuss below.

4.2.2. The negative view of CSR

From an agency perspective, CSR reflects agency problems in the firm (Benabou and Tirole, 2010). In his famous article in the New York Times, Friedman (1970) argues that "there is one and only one social responsibility of business--to use its resources and engage in activities designed to increase its profits". Consistent with this view, Barnea and Rubin (2010) find that insider ownership is negatively related to a firm's CSR rating, hinting that insiders overinvest in CSR to extract private benefits at the cost of shareholder

wealth. Similarly, Cheng, Hong, and Shue (2014) observe negative relations between insider ownership and "firm goodness" and between improved governance and firm goodness, suggesting that the latter is an outcome of agency problems. Using an event study, Kruger (2015) shows that investors respond negatively to positive CSR news likely because CSR results from agency problems.

The negative view of CSR suggests that foreign firms are likely to reduce CSR investment after cross-listing in the U.S., since the increase in monitoring associated with cross-listing will reduce insiders' ability to expropriate minority shareholders through CSR investment. More formally:

Hypothesis 1*: Cross-listing is negatively associated with firms' CSR performance.*

4.2.3. The positive view of CSR

Although the direction of the relation between CSR and financial performance remains an open question (Orlitzky, Schmidt, and Rynes, 2003; Margolis, Elfenbein and Walsh, 2009), existing empirical studies generally find a positive impact of CSR on firm value.[35] For instance, better CSR performance is shown to be related to larger abnormal stock returns (e.g., Dimson, Karakaş and Li, 2014), lower idiosyncratic risk (e.g., Lee and Faff, 2009), reduced risk of financial distress (e.g., Goss, 2009), lower cost of capital (e.g., El Ghoul et al., 2011; Ng and Rezaee, 2015), greater government subsidies (Lin et al., 2015) and improved access to finance (e.g., Cheng, Ioannou, and Serafeim, 2014). According to this "doing well by doing good" view of CSR, the strategic use of CSR can serve stakeholders' interests and maximize shareholder wealth.

[35] See Malik (2015) for a literature review on the value-increasing role of CSR.

This positive view of CSR suggests that cross-listing may increase CSR performance through two mechanisms: (i) improved corporate governance and (ii) greater exposure to litigation risk. First, recent empirical evidence shows that reduced agency problems (Ferrell, Liang, and Renneboog, 2014) and better corporate governance (Harjoto and Jo, 2011) lead to better CSR performance. Since cross-listed firms' corporate governance tends to improve after listing in the U.S. (i.e., the bonding theory), we expect them to have higher CSR performance. Second, foreign firms that cross-list in the U.S. face increased litigation risk because the U.S. has a much more litigious environment than other countries (Coffee 2002; Lowry and Shu, 2002). As argued by Koh, Qian and Wang (2014), CSR can be used as a risk management tool to reduce this litigation risk. Indeed, Hong and Liskovich (2015) argue for instance that CSR can even help insure against unfavorable regulation through a halo effect, whereby one's judgment of another character is influenced by one's overall (and usually first) impression. Accordingly, we expect cross-listed firms to increase CSR activities to mitigate their increased exposure to litigation risk in U.S. markets.

In sum, the above arguments suggest that cross-listing is positively associated with CSR performance. More formally:

Hypothesis 2*: Cross-listing is positively associated with firms' CSR performance.*

4.3. Data

4.3.1. Sample

To construct our sample, we start by collecting data from several sources. We obtain cross-listing information (type of ADR, effective issuance date, termination date,

underlying share, and country of origin) from the websites[36] of the major depositaries of ADRs: the Bank of New York, Citibank, Deutsche Bank, and J.P. Morgan. A firm may appear in the dataset several times because of name changes, upgrades, or downgrades. We consider each of these firms only once, manually checking the cross-listing dates. We exclude firms that have more than one type of ADR (Level I, Level II, Level III, and Rule 144a), which allows us to compare CSR performance across ADR types. CSR data come from Thomson Reuters' ASSET4, which provides environmental, social, and governance information on over 3,400 firms around the world as of 2002. This information is collected from publicly available sources (e.g., annual reports, NGO websites, CSR reports) and is updated biweekly. Firm-level financial data come from the Compustat Global database.

After collecting the above data, we merge our sample of cross-listed firms with the CSR data, and then match the resulting dataset with the financial data. After eliminating cross-listed firms with missing CSR and financial information, our final sample consists of 11,594 firm-year observations from 54 countries over the period 2002-2011.

4.3.2. Variables

4.3.2.1. CSR variables

Following Ioannou and Serafeim (2012), we construct our primary measure of a firm's CSR performance, *CSR*, as the average of the firm's environmental performance (*EP*) and social performance (*SP*) scores. A firm's environmental performance score captures the company's impact on living and non-living natural systems, including the air, land, and water, and is based on the firm's energy use, CO_2 emissions, waste recycling, etc. A firm's social performance score measures the company's capacity to generate trust and

[36] The respective websites are as follows: http://www.adrbnymellon.com/, https://wwss.citissb.com/adr, https://www.adr.db.com/, and https://www.adr.com/.

loyalty with its workforce, customers, and society and is based on factors such as employee turnover, injury rate, training hours, percentage of female employees, and the amount donated to charitable organizations.

4.3.2.2. Cross-listing variables

Based on cross-listing effective and termination dates, we construct the dummy variable *CROSS-LISTING* to indicate whether a firm is cross-listed in the U.S. in a given year. To compare the impacts of different ADR types, we also construct dummy variables for each ADR type. Rule 144a ADRs are initially sold as a private placement and traded through Automated Linkages (PORTAL) among Qualified Institutional Buyers (QIBs). Level I ADRs are traded over the counter (OTC). Level II and Level III ADRs can be traded on the New York Stock Exchange (NYSE), the National Association of Securities Dealers Automated Quotation System (NASDAQ), or the American Stock Exchange (AMEX). The four programs are quite distinct. In terms of governance and disclosure requirements, Level II and Level III ADRs are more restrictive than Level I and Rule 144a ADRs. With respect to capital raising, Level III and Rule 144a ADRs offer access to primary U.S. capital markets, while Level I and Level II ADRs only provide access to secondary U.S. capital markets. In addition, Level I, II, and III ADRs are open to public and private investors, while Rule 144a ADRs are mainly available to private institutional investors.

4.3.2.3. Firm-level control variables

We include a number of firm-level variables in our analyses to control for various factors that may affect CSR performance. In particular, we include proxies for firm size (*SIZE*), the logarithm of total assets in millions of $US, firm age (*AGE*), is the logarithm

of the difference between the current fiscal year and the first fiscal year of available accounting data, sales growth (*SGR*), the annual growth in sales, return on assets (*ROA*), the ratio of net income before extraordinary items to total assets, leverage (*LEV*), the ratio of total debt to total assets, and R&D expenditures (*RDS*), the ratio of research and development expenses to total sales. To mitigate the impact of outliers, we winsorize all financial variables at the 1% and 99% levels. In addition to these firm-level variables, we control for country, industry, and year fixed effects in all of our regressions.

4.3.3. Summary statistics

Table 4.1 summarizes the sample composition. Of the full sample of 11,594 firm-year observations from 54 countries over the period 2002-2011, there are 5,084 ADR observations, of which 4,010 are Level I, 547 are Level II, 302 are Level III, and 224 are Rule 144a ADRs. Panel A breaks this composition down by country. We find that the number of observations varies considerably across countries. For instance, Hungary, Panama, and Sri Lanka have the fewest observations at 2, while Japan has the most at 2,513. The number of ADR observations also shows considerable variation across countries. Six of our sample countries (Kuwait, Morocco, Qatar, Saudi Arabia, Sri Lanka, and UAE) do not have firms listed in the U.S. that meet our data requirements, while five of the sample countries (Colombia, Egypt, Hungary, Kazakhstan, and Peru) lack observations on non-cross-listed firms. Panel B summarizes the sample distribution by industry using Fama and French's (1997) 12-industry classification. Apart from Others, Finance has the fewest ADR observations at 10 while Manufacturing has the most at 911. Panel C summarizes the sample composition by fiscal year. In general, the number of observations in each category is increasing every year.

Table 4.2 presents descriptive statistics (and a correlation matrix for our main regression variables. In Panel A we see that CSR performance (*CSR*) ranges between 6.555 and 97.815, with an average of 56.333 and a standard deviation of 29.063, which points to considerable variation in CSR performance. The mean *CROSS-LISTING* is 0.439, implying that 43.9% of observations correspond to cross-listings. In Panel B we see that CSR performance is positively related to the cross-listing indicator, which means that cross-listed firms tend to have higher CSR performance. Since the correlation coefficients between the key variables of interest are low, multicollinearity is not likely to be driving our regression results.

Table 4.3 presents results on differences in means and medians between cross-listing and non-cross-listing observations. We find that mean and median CSR performance are higher for cross-listing than non-cross-listing observations. These results support the preliminary evidence in Table 4.2 that cross-listed firms tend to have better CSR performance. However, these tests do not control for other variables that could affect CSR. We conduct multivariate analysis next.

4.4. Results

4.4.1. Cross-listing vs. non-cross-listing

To test our hypotheses, we start by examining the following specification:

$$CSR = \alpha + \beta_1\, CR0SS\_LISTING + \beta_2 Controls + \beta_3 Fixed\ Effects + \varepsilon, \qquad (1)$$

where *CSR* is a firm's CSR performance, *CROSS-LISTING* is a dummy variable equal to one if a firm is cross-listed in the U.S. in a given year, *Controls* is a vector that contains the firm-level control variables (*SIZE*, *AGE*, *SGR*, *ROA*, *LEV*, and *RDS*), and

Fixed Effects is a vector that includes the country, industry, and year fixed effects. In each regression, we follow Petersen (2009) and cluster standard errors by firm and year.

The regression results for specification (1) are reported in Table 4.4. In the first column of Table 4.4, the dependent variable is *CSR*, the average of a firm's environmental and social performance scores. The estimated coefficient on *CROSS_LISTING* is positive and significant at the 1% level, suggesting that in line with the positive view of CSR (Hypothesis 1), cross-listed firms have greater CSR performance than non-cross-listed firms. This result is also economically significant: the coefficient on *CROSS_LISTING* is 7.980, which together with the average CSR score of 56.333 (Table 4.2, Panel A) implies that on average CSR performance is 14.2% higher (from 56.333 to 64.313) for cross-listed firms than non-cross-listed firms. Turning to the firm-level control variables, the results show that firm size, age, return on assets, and R&D expenses are positively associated with CSR performance, while sales growth and leverage are negatively related to CSR performance.

In Columns 2 to 4 of Table 4.4, we address potential endogeneity of the cross-listing decision. Firms with better CSR performance could be more likely to cross-list, which would introduce selection bias in our estimate of the cross-listing-CSR relation. It is also possible that cross-listing and CSR performance are both driven by omitted firm characteristics, which would drive the documented relation. We address these concerns using three approaches.

We first employ two-stage least squares (2SLS). In the first-stage estimation, we specify a Probit model to estimate a firm's decision to cross-list as a function of firm characteristics and country characteristics. Following prior literature (Doidge, Karolyi, and

Stulz, 2004; Fernandes and Ferreira, 2008), we include the disclosure requirements index and the anti-self-dealing index as instrumental variables, along with all firm-level control variables in our main regression. The disclosure requirements index comes from La Porta, Lopez-de-Silanes and Shleifer (2006), while the anti-self-dealing index comes from Djankov et al. (2008). The *F*-test in the first stage is positive and significant (F=368.268, p<0.001), indicating that the instrumental variables are significantly related to the cross-listing decision and hence are not weak instrument.[37] The overidentificantion test (χ^2=0.195, p=0.6588) also suggests that the instruments are valid. In the second stage, we estimate our main regression specification (1), that is, we regress *CSR* on *CROSS-LISTING* and the full set of control variables. Column 2 reports the second-stage regression results. The coefficient on *CROSS_LISTING* is positive and significant at the 1% level, which confirms our finding above that cross-listed firms are associated with higher CSR performance.

Next, we employ the Heckman (1979) selection model. In the first stage of the Heckman model, we conduct the same estimation as the 2SLS approach. We then use the estimated cross-listing probabilities to construct the inverse Mills' ratio (λ), a correction for self-selection. Finally, in the second stage of the Heckman model, we regress CSR performance on λ, the estimated cross-listing probabilities, and the full set of control variables. The results are presented in Column 3 of Table 4.4. We continue to observe that cross-listed firms have better CSR performance.

Our third approach to addressing potential endogeneity is the propensity score matching (PSM) procedure proposed by Rosenbaum and Rubin (1983). We start by

[37] Results of the first-stage Probit model are available upon request.

estimating propensity scores using a Probit model, where the dependent variable is cross-listing and the explanatory variables are the usual firm-level control variables in addition to the disclosure requirements index and the anti-self-dealing index. We then match each cross-listed firm with the non-cross-listed firm that has the closet score to the cross-listed firm, and we conduct the regression analysis using the matched sample. The results, reported in Column 4 of Table 4.4, show that the impact of cross-listing on CSR performance remains significantly positive. Thus, even when we focus on non-cross-listed firms that have similar characteristics as cross-listed firms, we continue to find that cross-listing is positively and significantly related to CSR performance at the 1% level. In sum, the results using all three approaches consistently suggest that the positive relation between cross-listing and CSR performance is robust to endogeneity concerns.

We next examine whether our main result continues to hold when we separately consider the environmental and social components of CSR. Columns 5 and 6 of Table 4.4 report results of regressing the environmental performance (*EP*) and social performance (*SP*) components of CSR, respectively, on cross-listing and the control variables. The coefficients on cross-listing are both positive and significant at the 1% level, consistent with our findings using overall CSR. Economically, on average cross-listed firms have 10.1% higher environmental performance and 18.4% higher social performance than non-cross-listed firms.[38]

In additional analysis, we also examine whether the relation between cross-listing and CSR performance varies with the type of ADR program. As we discuss earlier, there are four types of ADRs: Level I, Level II, Level III, and Rule 144a. Rule 144a ADRs are

[38] The average of *EP* is 57.522, and the average of *SP* is 55.145.

initially sold as a private placement, Level I ADRs are traded over the counter, and Level II and Level III ADRs can be traded on NYSE, NASDAQ, or AMEX. Column 7 of Table 4.4 reports results of regressing CSR performance on proxies for the four types of ADRs in addition to the usual controls. In terms of overall CSR performance, all four types of ADRs take positive and significant coefficients.

Taken together, the results in Table 4.4 support the positive view of CSR (Hypothesis 2). In particular, we find that cross-listed firms have better CSR performance than non-cross-listed firms, and that this positive relation is robust to considering endogeneity concerns, the components of CSR, and ADR program types.

4.4.2. Change in CSR performance around listing and delisting

So far we compare the CSR performance of cross-listed firms and non-cross-listed firms. In this subsection, we focus on the dynamic effects of cross-listing on CSR performance in cross-listed firms. Analyzing the dynamics of this relation can further mitigate concerns that our results are driven by self-selection bias. If CSR performance changes because of improved corporate governance and greater exposure to litigation risk after cross-listing, we should observe an increase in CSR performance after cross-listing.

To do so, we first analyze CSR performance in cross-listed firms before cross-listing, after cross-listing, and after delisting (if any). Panel A of Table 4.5 reports the univariate results. The first six columns present results for the periods before and after cross-listing. Average (median) CSR performance increases by almost 25% (40%) from 54.731 to 68.041 (56.358 to 78.875) after cross-listing, significant at the 1% level. The next three columns report results for the period after delisting (if any). Comparing the periods after cross-listing and delisting, we observe a decrease in CSR performance, significant at

the 1% level, with average (median) CSR performance decreasing from 68.041 (78.875) after cross-listing to 57.806 (55.665) after delisting. These results support the view that cross-listing in the U.S. helps improve CSR performance.

We next examine the dynamic impacts of cross-listing through regression analysis. Specifically, for the sample of cross-listed firms, we regress the overall CSR variable on the cross-listing dummies *Years 1-2 before cross-listing, Year of cross-listing, Years 1-2 after cross-listing, …,* and *Years 9+ after cross-listing* along with the usual control variables. The regression results are reported in the first column of Panel B of Table 4.5. The coefficient on *Years 1-2 before cross-listing* is insignificant, implying that our results are not driven by a pre-listing trend. In contrast, the cross-listing year and post-cross-listing year dummies are all significantly positive, suggesting that CSR performance is increasing after cross-listing. Notably, the magnitude of the performance increase rises over time, except for the period 5 to 6 years after cross-listing. To present further evidence on this result, we allow the effect of cross-listing on CSR performance to grow linearly over time by regressing CSR performance on the variable *Years since cross-listing*, which equals zero before cross-listing and the number of years after cross-listing otherwise, and the controls. The results, reported in the second column of Panel B of Table 4.5, reveal a positive and significant effect on CSR performance, which suggests that the effect of cross-listing on firms' CSR performance is indeed increasing over time.

In summary, we find that firms' CSR performance increases following cross-listing, which alleviates concerns about potential self-selection bias. Moreover, we find that this improvement in CSR performance increases with the number of years since cross-listing.

4.4.3. Do home country institutions matter?

In this subsection, we examine whether home country institutions influence the improvements in CSR performance for cross-listed firms. If the increase in CSR performance comes from improved corporate governance through U.S. cross-listing, the effect of U.S cross-listing should be larger for firms that originate from countries with weaker institutions. To investigate this conjecture, we employ three proxies for home country institutions: *COMMON*, a dummy variable derived from La Porta et al. (1998) that indicates whether the home country is a common law country; *ANTI-SELF-DEALING*, the anti-self-dealing index of Djankov et al. (2008); and *FINANCIAL STRUCTURE*, a proxy for financial system development that is defined as stock market capitalization to GDP divided by bank credit to GDP (Beck and Levine, 2002) and is constructed using the Financial Development and Structure Dataset from the World Bank.

Table 4.6 reports results of regressing overall CSR performance on cross-listing, one of the three proxies for home country institutions, the interaction between cross-listing and the proxy for home country institutions, and the control variables. The coefficients on cross-listing are positive and significant in each specification, consistent with our main results. The coefficients on all of the home country institution proxies are also positive and significant, suggesting that stronger home country institutions lead to better CSR performance. More importantly for our purposes, the coefficients of the interaction terms are all negative and significant at the 1% level. This result implies that for firms from countries with weaker institutions, U.S cross-listing offers a stricter institutional environment and hence improvements in corporate governance and in turn CSR

performance are larger. These results are consistent with prior literature showing that firms from countries with weak institutions benefit more from U.S. cross-listing (Reese and Weisbach, 2002; Doidge, Karolyi, and Stulz, 2004).

4.4.4. Does the listing venue matter?

Prior literature suggests that the U.S. provides a stronger institutional environment than other cross-listing destinations (Doidge, Karolyi, and Stulz, 2009). To shed more light on our results above, we examine whether the effect of cross-listing on CSR performance varies with the listing venue. To do so, we first collect international exchange information from Compustat. Some firms are cross-listing both in the U.S. and other destinations. We only consider firms that are not simultaneously cross-listed in the U.S. We then merge these firms with our current sample. Panel A of Table 4.7 summarizes the sample of firms cross-listed in destinations other than the U.S. that meet our data requirements. As can be seen, we have 453 firm-year observations cross-listed in 19 countries. Next, we create the dummy variable *CL_NUS*, which equals one if a firm is cross-listed outside the U.S., and zero otherwise. Finally, we regress the overall CSR variable on *CL_NUS* and the control variables. The results are reported in Panel B of Table 4.7. Column 1 reports regression results for the whole sample and Column 2 reports results after excluding firms simultaneously cross-listed in the U.S. In both columns the coefficients on *CL_NUS* are insignificant, suggesting that firms cross-listed in other countries do not observe better CSR performance than their domestic counterparts. This finding is consistent with prior cross-listing literature showing that the U.S. provides the strongest monitoring environment and hence leads to the greatest performance improvements.

4.4.5. Litigation risk and CSR performance

Cross-listing in the U.S. not only implies better monitoring and a lower cost of capital, but also an increased exposure to lawsuits given that the U.S. has a much more litigious environment than other countries (Lowry and Shu, 2002). However, to the extent that CSR serves an insurance mechanism that reduces litigation risk, CSR investment should be higher in firms that face greater litigation risk (Koh, Qian, and Wang, 2014). To operationalize this conjecture in our context, we test whether CSR performance is higher for cross-listed firms operating in industries that face greater litigation risk. Following prior literature (e.g., Francis, Philbrick and Schipper, 1994; Koh, Qian, and Wang, 2014), we define *LITIGATION RISK* as a dummy that equals one for the following high litigation risk industries[39]: biotechnology, computer, electronics, and retailing. Table 4.8 reports results of regressing CSR on cross-listing, the industry dummy, the interaction between these two variables, and the controls. Consistent with our main results, the coefficients on cross-listing remain positive and significant at the 1% level. The coefficient on *LITIGATION RISK* is not significant, but its interaction with cross-listing (*CROSS-LISTING * LITIGATION RISK*) is positive and significant. This result is consistent with our expectation that cross-listed firms in high litigation risk industries are more likely to invest in CSR to reduce their exposure to a costly lawsuit.

4.4.6. Investors' valuation of CSR in cross-listed firms

The analyses above consistently show that cross-listed firms have better CSR performance. Prior research suggests that firms with better CSR performance are valued more by investors, as CSR helps reduce firms' risk (Lee and Faff, 2009; Koh, Qian, and Wang, 2014) and improve information quality (Dhaliwal et al., 2012; Gao and Zhang,

[39] Biotechnology: SIC 2833-2836; computer: 3570-3577, 7370-7374; electronics: 3600-3674; and retailing: 5200-5961.

2015; Kim, Park, and Wier, 2012). In this subsection, we empirically test whether cross-listed firms observe a value benefit from better CSR performance. In Table 4.9, we examine the impact of CSR and cross-listing on firm value, as measured by the market-to book ratio (*MTB*). First, we examine the impact of cross-listing on firm value. The results are presented in the first column of Table 4.9. The coefficient on cross-listing is positive and significant, consistent with literature showing that there is a value premium to cross-listing. Second, we regress firm value on cross-listing, lagged CSR, their interaction, and the controls. The coefficients on cross-listing and CSR are insignificant, but the interaction between cross-listing and CSR is positive and significant at the 5% level, implying that cross-listed firms with better CSR performance are valued more highly by investors.

4.5. Conclusion

Despite a large literature on cross-listing, few studies investigate the social impact of cross-listing. Using 11,594 firm-year observations from 54 economies over the period 2002-2011, we shed light on this relation using CSR performance as a proxy for the firm's social impact. Consistent with the positive view of CSR, we find that cross-listing is positively associated with CSR performance. This positive relation is robust to endogeneity tests and holds across different types of ADRs. To further mitigate self-selection concerns, we examine changes in CSR performance among cross-listed firms and find that CSR increases significantly following cross-listing in, and decreases significantly after delisting from, the U.S. In addition, analysis of the dynamic effects of cross-listing on CSR performance suggest that our results are not driven by a pre-listing trend and that the improvement in CSR performance increases with the number of years since cross-listing.

We further find that the positive impact of cross-listing on CSR performance is larger for firms from countries with weaker institutions, consistent with bonding theory, which holds that firms from countries with weak institutions benefit more from cross-listing in the U.S. (Reese and Weisbach, 2002; Doidge, Karolyi, and Stulz, 2004). When we examine the effect of cross-listing in other destinations, we observe no significant impact on CSR performance, confirming that U.S. markets provide the strongest monitoring environment for cross-listed firms (Doidge, Karolyi, and Stulz, 2009). Moreover, we find that cross-listed firms in high litigation risk industries are more likely to invest in CSR, in line with our argument that cross-listed firms may use CSR to reduce their exposure to litigation risk. Finally, we find that cross-listed firms with better CSR performance are valued more by investors.

Overall, this essay contributes to different strands of the literatures on cross-listing, CSR, and the impact of country-level institutions. With respect to the first line of research, we provide the first study to our knowledge to assess the social responsibility of cross-listed firms. We find that cross-listed firms have better CSR performance than their peers. We thus add to this line of literature by showing that not only financial performance but also social performance can be improved by cross-listing. With respect to the second line of research, we provide support for the positive view of CSR. We show that improved corporate governance increases CSR performance, and that investors value CSR investments in cross-listed firms. With respect to the third line of research, we show that changes in the institutional environment may also influence firms' CSR performance.

Table 4.1 Sample Composition

	All	ADR		Type of ADR			
		0	1	Level I	Level II	Level III	Rule 144A
Full Sample	11,594	6,510	5,08	4,010	547	302	224
Panel A By Country							
Australia	791	489	302	257	20	10	15
Austria	96	33	63	63	0	0	0
Belgium	156	81	75	62	13	0	0
Brazil	99	26	73	15	48	10	0
Canada	1,178	1,177	1	0	1	0	0
Chile	27	15	12	0	0	12	0
China	107	54	53	37	0	14	2
Colombia	3	0	3	0	3	0	0
Cyprus	10	6	4	4	0	0	0
Czech Republic	9	5	4	0	0	0	4
Denmark	139	68	71	51	10	10	0
Egypt	3	0	3	0	0	0	3
Finland	201	93	108	96	0	10	2
France	595	255	340	286	27	27	0
Germany	495	222	273	239	34	0	0
Greece	107	60	47	26	0	0	21
Hong Kong	335	85	250	228	0	22	0
Hungary	2	0	2	2	0	0	0
India	111	69	42	0	7	8	27
Indonesia	29	3	26	26	0	0	0
Ireland	106	34	72	41	21	10	0
Israel	32	7	25	11	4	10	0
Italy	237	98	139	91	0	29	19
Japan	2,513	1,408	1,10	1,006	82	17	0
Kazakhstan	3	0	3	0	0	0	3
Korea	136	85	51	4	4	13	30
Kuwait	3	3	0	0	0	0	0
Luxembourg	48	22	26	10	16	0	0
Malaysia	66	54	12	12	0	0	0
Mexico	53	13	40	12	18	10	0
Morocco	3	3	0	0	0	0	0
Netherlands	215	80	135	105	10	20	0
New Zealand	72	37	35	35	0	0	0
Norway	152	52	100	93	0	7	0
Panama	2	2	0	0	0	0	0
Papua New Guinea	4	0	4	3	1	0	0
Peru	3	0	3	0	0	3	0
Philippines	13	6	7	4	3	0	0
Poland	24	15	9	6	0	0	3
Portugal	70	23	47	40	0	7	0
Qatar	4	4	0	0	0	0	0
Russia	76	9	67	18	0	3	46
Saudi Arabia	15	15	0	0	0	0	0
Singapore	171	68	103	99	4	0	0

South Africa	79	8	71	60	9	2	0
Spain	288	170	118	106	2	10	0
Sri Lanka	2	2	0	0	0	0	0
Sweden	321	165	156	146	10	0	0
Switzerland	371	222	149	101	33	15	0
Taiwan	97	47	50	0	0	13	37
Thailand	29	20	9	9	0	0	0
Turkey	28	5	23	8	0	3	12
UAE	14	14	0	0	0	0	0
UK	1,851	1,078	773	598	167	7	0
Panel B By Industry							
Business Equipment	1,020	553	467	317	78	43	29
Chemicals and Allied Products	628	348	280	246	18	10	6
Consumer Durables	489	200	289	227	28	10	24
Consumer Non Durables	919	471	448	387	44	5	12
Energy	785	461	324	196	33	51	44
Finance	267	257	10	5	5	0	0
Healthcare	564	274	290	172	68	47	3
Manufacturing	1,844	933	911	779	80	24	28
Telephone and Television Transmission	650	287	363	205	59	79	20
Utilities	579	295	284	217	32	14	21
Wholesale, Retail, and Some Services	1,189	742	447	416	15	2	14
Others	2,660	1,689	971	843	87	17	23
Panel C By Year							
2002	372	229	143	89	33	17	4
2003	375	227	148	93	33	18	4
2004	861	602	259	186	45	20	8
2005	1,121	801	320	233	53	24	10
2006	1,133	811	322	236	52	24	10
2007	1,264	906	358	255	61	26	16
2008	1,468	671	797	647	67	42	40
2009	1,714	806	908	736	72	50	50
2010	1,886	887	999	815	74	51	59
2011	1,400	570	830	720	57	30	23

This table shows the composition of the whole sample by country, industry, and year. The sample is composed of 11,594 firm-year observations from 54 economies over the period 2002-2011. The industry classification follows Fama–French 12 Industry Groups.

Table 4.2 Descriptive Statistics and Correlation Matrix

Panel A. Descriptive Statistics

	N	Mean	SD	Min	P25	P50	P75	Max
CSR	11,594	56.333	29.063	6.555	28.145	60.028	84.710	97.815
CROSS_LISTING	11,594	0.439	0.496	0.000	0.000	0.000	1.000	1.000
SIZE	11,594	8.529	1.483	1.687	7.540	8.447	9.476	13.537
AGE	11,594	2.614	0.549	0.000	2.303	2.773	2.996	4.111
SGR	11,594	0.105	0.273	-0.500	-0.014	0.062	0.170	1.568
ROA	11,594	0.052	0.070	-0.198	0.019	0.045	0.081	0.288
LEV	11,594	0.178	0.147	0.000	0.056	0.157	0.261	0.632
RDS	11,594	0.018	0.041	0.000	0.000	0.000	0.019	0.232

Panel B. Correlation Matrix

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CSR	(1)	1.000							
CROSS_LISTING	(2)	0.356***	1.000						
SIZE	(3)	0.513***	0.340***	1.000					
AGE	(4)	0.224***	0.131***	0.274***	1.000				
SGR	(5)	-0.147***	-0.094***	-0.097***	-0.216***	1.000			
ROA	(6)	-0.038***	-0.005	-0.138***	-0.101***	0.183***	1.000		
LEV	(7)	0.054***	0.040***	0.166***	-0.039***	-0.035***	-0.200***	1.000	
RDS	(8)	0.106***	0.135***	-0.027**	0.054***	-0.037***	-0.054***	-0.179***	1.000

This table provides descriptive statistics and a correlation matrix for the main regression variables. The sample comprises 11,594 firm-year observations from 54 economies over the period 2002-2011. *CSR* is a firm's overall CSR performance, measured as the average of its environmental performance and social performance scores. *CROSS-LISTING* is a dummy variable that equals one if a firm is cross-listed in the U.S. in a given year, and zero otherwise. *SIZE* is the logarithm of total assets in millions of $US. *AGE* is the logarithm of the difference between the current fiscal year and the first fiscal year of available accounting data. *SGR* is annual sales growth. *ROA* is the ratio of net income before extraordinary items to total assets. *LEV* is leverage, defined as the ratio of total debt to total assets. *RDS* is the ratio of research and development expenses to total sales. All financial variables are winsorized at the 1% and 99% levels. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4.3 Univariate Tests: Cross-listing versus Non-cross-listing Observations

	All firms			Cross-listing			Non-cross-listing			Differences	
	N	Mean	Median	N	Mean	Median	N	Mean	Median	Mean	Median
CSR	11,594	56.333	60.028	5,084	68.041	78.875	6,510	47.190	43.873	41.020***	39.076***
SIZE	11,594	8.529	8.447	5,084	9.100	9.055	6,510	8.082	8.011	38.976***	37.951***
AGE	11,594	2.614	2.773	5,084	2.695	2.833	6,510	2.550	2.708	14.211***	13.797***
SGR	11,594	0.105	0.062	5,084	0.076	0.050	6,510	0.128	0.077	-10.130***	-11.135***
ROA	11,594	0.052	0.045	5,084	0.052	0.045	6,510	0.052	0.045	-0.565	-0.442
LEV	11,594	0.178	0.157	5,084	0.184	0.168	6,510	0.172	0.147	4.271***	7.291***
RDS	11,594	0.018	0.000	5,084	0.025	0.003	6,510	0.014	0.000	14.670***	21.954***

This table reports results of univariate tests of differences between cross-listing and non-cross-listing observations. The sample comprises 11,594 firm-year observations from 54 economies over the period 2002-2011. *CSR* is a firm's overall CSR performance, measured as the average of its environmental performance and social performance scores. *SIZE* is the logarithm of total assets in millions of $US. *AGE* is the logarithm of the difference between the current fiscal year and the first fiscal year of available accounting data. *SGR* is annual sales growth. *ROA* is the ratio of net income before extraordinary items to total assets. *LEV* is leverage, defined as the ratio of total debt to total assets. *RDS* is the ratio of research and development expenses to total sales. All financial variables are winsorized at the 1% and 99% levels. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4.4 Cross-listing and CSR: Cross-listing versus Non-cross-listing

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Baseline	Endogeneity			Components of CSR		
		2SLS	Heckman	PSM	EP	SP	ADR Types
CROSS_LISTING	7.980***	9.371***	7.705***	8.613***	5.788***	10.172***	
	(6.991)	(7.821)	(6.441)	(6.548)	(4.834)	(8.527)	
LEVEL I							8.382***
							(7.541)
LEVEL II							4.277**
							(2.315)
LEVEL III							7.627***
							(3.177)
RULE 144A							7.969**
							(2.417)
SIZE	9.831***	6.320***	9.988***	9.303***	10.252***	9.410***	9.973***
	(22.851)	(9.918)	(24.531)	(23.282)	(20.113)	(22.879)	(22.430)
AGE	2.475***	1.238	0.240	1.552	2.650***	2.300**	2.418***
	(2.663)	(1.166)	(0.235)	(1.413)	(2.621)	(2.330)	(2.588)
SGR	-6.921***	-5.481***	-7.686***	-9.217***	-6.436***	-7.405***	-6.908***
	(-5.676)	(-4.639)	(-5.957)	(-6.843)	(-4.489)	(-6.173)	(-5.757)
ROA	18.939***	12.887*	29.403***	27.905***	13.474**	24.403***	19.548***
	(3.615)	(1.950)	(4.747)	(4.369)	(2.159)	(4.781)	(3.718)
LEV	-7.406**	-0.203	-0.640	1.774	-8.765***	-6.046*	-7.654**
	(-2.450)	(-0.060)	(-0.191)	(0.470)	(-2.774)	(-1.885)	(-2.524)
RDS	45.244***	7.961	50.743***	45.576***	39.786***	50.701***	47.444***
	(3.623)	(0.506)	(3.772)	(3.183)	(2.836)	(3.924)	(3.731)
λ			4.588***				
			(5.333)				
Constant	-24.773***	0.014	-31.928***	-30.372***	-33.073***	-16.473***	-25.776***
	(-5.350)	(0.002)	(-9.423)	(-8.952)	(-7.450)	(-2.801)	(-5.421)
Country FE	Yes	No	No	No	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,594	11,270	10,806	9,824	11,594	11,594	11,594
Adjusted R^2	0.490	0.390	0.419	0.336	0.477	0.436	0.491

This table reports results of regressing CSR performance on cross-listing. The sample comprises 11,594 firm-year observations from 54 economies over the period 2002-2011. *CSR* is the firm's overall CSR performance, measured as the average of its environmental performance and social performance scores. *CROSS-LISTING* is a dummy variable that equals one if a firm is cross-listed in the U.S. in a given year, and zero otherwise. *LEVEL I*, *LEVEL II*, *LEVEL III*, and *RULE 144A* are dummy variables for each type of ADR. *SIZE* is the logarithm of total assets in millions of $US. *AGE* is the logarithm of the difference between the current fiscal year and the first fiscal year of available accounting data. *SGR* is annual sales growth. *ROA* is the ratio of net income before extraordinary items to total assets. *LEV* is leverage, defined as the ratio of total debt to total assets. *RDS* is the ratio of research and development expenses to total sales. In Columns 2-4, we use two-stage least squares (2SLS), the Heckman selection model, and propensity score matching (PSM) to address endogeneity concerns. λ is the inverse Mills' ratio produced by the Heckman model. Columns 5 and 6 report regression results for the two components of CSR performance: *EP*, environmental performance, which measures a company's impact on living and non-living natural systems, including the air, land, and water, as well as complete ecosystems, and *SP*, social performance, which measures a company's capacity to generate trust and loyalty with its workforce, customers, and society through its use of best management practices. Column 7 reports regression results of CSR performance on each ADR type. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. All financial variables are winsorized at the 1% and 99% levels. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4.5 Cross-listing and CSR: Changes in CSR Performance

Panel A. Changes in CSR Performance in Cross-Listed Firms													
	Before cross-listing			After cross-listing			Delisting			Before vs. After		After vs. Delisting	
	N	Mean	Median	N	Mean	Median	N	Mean	Median	Mean (t-statistics)	Median (z-statistics)	Mean (t-statistics)	Median (z-statistics)
CSR	2,362	54.731	56.358	5,084	68.041	78.875	41	57.806	55.665	20.215***	21.066***	-2.4695***	-2.915***
SIZE	2,362	8.197	8.137	5,084	9.100	9.055	41	8.993	9.078	26.585***	25.752***	-0.4891	-0.648
AGE	2,362	2.409	2.639	5,084	2.695	2.833	41	2.909	2.996	22.982***	23.095***	3.1305***	3.890***
SGR	2,362	0.134	0.086	5,084	0.076	0.050	41	0.085	0.071	-9.759***	-12.550***	0.2446	0.897
ROA	2,362	0.063	0.052	5,084	0.052	0.045	41	0.034	0.030	-6.910***	-6.860***	-1.7303*	-1.856*
LEV	2,362	0.177	0.155	5,084	0.184	0.168	41	0.207	0.203	1.894*	3.639***	1.0740	0.662
RDS	2,362	0.017	0.000	5,084	0.025	0.003	41	0.016	0.003	6.740***	10.383***	-1.1867	-0.569

Panel A reports mean and median changes in CSR performance in cross-listed firms before cross-listing, after cross-listing, and after delisting. Panel B reports dynamic effects of cross-listing on CSR performance. *CSR* is a firm's overall CSR performance, measured as the average of its environmental performance and social performance scores. *SIZE* is the logarithm of total assets in millions of $US. *AGE* is the logarithm of the difference between the current fiscal year and the first fiscal year of available accounting data. *SGR* is annual sales growth. *ROA* is the ratio of net income before extraordinary items to total assets. *LEV* is leverage, defined as the ratio of total debt to total assets. *RDS* is the ratio of research and development expenses to total sales. All financial variables are winsorized at the 1% and 99% levels. All regressions control for country, industry, and year fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel B. Dynamic effects		
	(1)	(2)
	Time dummies	Linear treatment effects
Years 1-2 before cross-listing	1.467	
	(1.414)	
Year of cross-listing	2.639**	
	(2.097)	
Years 1-2 after cross-listing	5.111***	
	(3.760)	
Years 3-4 after cross-listing	5.517***	
	(3.543)	
Years 5-6 after cross-listing	3.563*	
	(1.900)	
Years 7-8 after cross-listing	6.173***	
	(3.218)	
Years 9+ after cross-listing	6.492***	
	(3.662)	
Years since cross-listing		0.486***
		(2.967)
SIZE	9.046***	9.139***
	(20.922)	(21.205)
AGE	2.996***	2.907**
	(2.635)	(2.561)
SGR	-8.718***	-8.856***
	(-7.650)	(-7.762)
ROA	22.839***	23.225***
	(3.541)	(3.607)
LEV	0.142	0.330
	(0.034)	(0.079)
RDS	32.911**	34.696**
	(2.110)	(2.222)
Constant	-20.226***	-17.807***
	(-3.822)	(-3.382)
Country FE	Yes	Yes
Industry FE	Yes	Yes
Year FE	Yes	Yes
Observations	7,487	7,487
Adjusted R^2	0.461	0.460

Panel A reports mean and median changes in CSR performance in cross-listed firms before cross-listing, after cross-listing, and after delisting. Panel B reports dynamic effects of cross-listing on CSR performance. *CSR* is a firm's overall CSR performance, measured as the average of its environmental performance and social performance scores. *SIZE* is the logarithm of total assets in millions of $US. *AGE* is the logarithm of the difference between the current fiscal year and the first fiscal year of available accounting data. *SGR* is annual sales growth. *ROA* is the ratio of net income before extraordinary items to total assets. *LEV* is leverage, defined as the ratio of total debt to total assets. *RDS* is the ratio of research and development expenses to total sales. All financial variables are winsorized at the 1% and 99% levels. All regressions control for country, industry, and year fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4.6 Cross-listing and CSR: The Role of Home Country Institutions

	(1)	(2)	(3)
	COMMON	*ANTI-SELF-DEALING*	*FINANCIAL STRUCTURE*
CROSS_LISTING	11.142***	16.376***	17.556***
	(6.263)	(5.563)	(11.586)
INSTITUTIONS	4.828***	8.061***	5.632***
	(3.747)	(2.743)	(2.619)
*CROSS_LISTING*INSTITUTIONS*	-4.763***	-12.925***	-10.065***
	(-2.746)	(-3.472)	(-6.029)
SIZE	9.224***	9.132***	8.700***
	(19.817)	(19.497)	(16.795)
AGE	2.187	2.096	2.459*
	(1.475)	(1.460)	(1.904)
SGR	-8.989***	-8.708***	-8.795***
	(-6.488)	(-6.887)	(-6.887)
ROA	22.698***	24.893***	24.388***
	(3.823)	(4.263)	(4.145)
LEV	1.886	2.434	5.981
	(0.566)	(0.736)	(1.611)
RDS	52.982***	51.867***	52.860***
	(3.878)	(3.816)	(3.671)
Constant	-34.535***	-35.651***	-34.032***
	(-8.785)	(-7.973)	(-10.157)
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	11,580	11,544	10,648
Adjusted R^2	0.385	0.386	0.383

This table reports results of regressing CSR performance on cross-listing and difference proxies for home country institutions. *CSR* is a firm's overall CSR performance, measured as the average of its environmental performance and social performance scores. *COMMON* is the common law dummy from La Porta et al. (1998). *ANTI-SELF-DEALING* is the anti-self-dealing index from Djankov et al. (2008). *FINANCIAL STRUCTURE* equals stock market capitalization to GDP divided by bank credit to GDP, and comes from the World Bank. *CROSS-LISTING* is a dummy variable that equals one if a firm is cross-listed in the U.S. in a given year, and zero otherwise. *SIZE* is the logarithm of total assets in millions of $US. *AGE* is the logarithm of the difference between the current fiscal year and the first fiscal year of available accounting data. *SGR* is annual sales growth. *ROA* is the ratio of net income before extraordinary items to total assets. *LEV* is leverage, defined as the ratio of total debt to total assets. *RDS* is the ratio of research and development expenses to total sales. All financial variables are winsorized at the 1% and 99% levels. All regressions control for industry and year fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4.7 Cross-listing and CSR: The Role of Listing Venue

Panel A. Non-U.S. cross-listings by host country	
Australia	30
Canada	9
Denmark	9
France	18
Germany	114
Hong Kong	49
Luxembourg	12
Netherlands	9
New Zealand	19
Poland	2
Portugal	6
Saudi Arabia	4
Singapore	18
South Africa	11
Spain	4
Sweden	10
Switzerland	9
Taiwan	1
UK	118
Total	453

Panel B. Non-U.S. cross-listing and CSR		
	(1)	(2)
	Full sample	Exclude U.S. cross-listing
CL_NUS	2.106	3.477
	(1.201)	(1.376)
SIZE	10.872***	10.441***
	(28.127)	(21.117)
AGE	2.823***	2.342**
	(2.977)	(2.271)
SGR	-7.427***	-5.753***
	(-5.793)	(-4.827)
ROA	22.055***	21.784***
	(4.172)	(3.439)
LEV	-7.203**	-16.712***
	(-2.265)	(-4.829)
RDS	59.065***	68.626***
	(4.596)	(4.044)
Constant	-27.775***	-25.456***
	(-6.048)	(-4.483)
Country FE	Yes	Yes
Industry FE	Yes	Yes
Year FE	Yes	Yes
Observations	11,594	6,510
Adjusted R^2	0.478	0.416

Panel A summarizes the sample of non-U.S. cross-listings by host country. Panel B reports the results of regressing CSR performance on non-U.S. cross-listing. *CSR* is a firm's overall CSR performance, measured as the average of its environmental performance and social performance scores. *CL_NUS* is a dummy variable that equals one if a firm is cross-listed outside the U.S., and zero otherwise. *SIZE* is the logarithm of total assets in millions of $US. *AGE* is the logarithm of the difference between the current fiscal year and the first fiscal year of available accounting data. *SGR* is annual sales growth. *ROA* is the ratio of net income before extraordinary items to total assets. *LEV* is leverage, defined as the ratio of total debt to total assets. *RDS* is the ratio of research and development expenses to total sales. All financial variables are winsorized at the 1% and 99% levels. All regressions control for country, industry, and year fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4.8 Cross-listing, Litigation Risk, and CSR

	(1)
CROSS_LISTING	7.037***
	(6.395)
LITIGATION RISK	-2.384
	(-1.349)
*CROSS_LISTING*LITIGATION RISK*	4.772***
	(2.874)
SIZE	9.799***
	(22.640)
AGE	2.519***
	(2.695)
SGR	-6.895***
	(-5.728)
ROA	18.827***
	(3.620)
LEV	-7.464**
	(-2.448)
RDS	42.242***
	(3.347)
Constant	-24.296***
	(-5.329)
Country FE	Yes
Industry FE	Yes
Year FE	Yes
Observations	11,594
Adjusted R^2	0.491

This table reports results of regressing CSR performance on cross-listing and litigation risk. *CSR* is a firm's overall CSR performance, measured as the average of its environmental performance and social performance scores. *CROSS-LISTING* is a dummy variable that equals one if a firm is cross-listed in the U.S. in a given year, and zero otherwise. *LITIGATION RISK* equals one for high litigation risk industries (biotechnology, computer, electronics, and retailing). *SIZE* is the logarithm of total assets in millions of $US. *AGE* is the logarithm of the difference between the current fiscal year and the first fiscal year of available accounting data. *SGR* is annual sales growth. *ROA* is the ratio of net income before extraordinary items to total assets. *LEV* is leverage, defined as the ratio of total debt to total assets. *RDS* is the ratio of research and development expenses to total sales. All financial variables are winsorized at the 1% and 99% levels. All regressions control for country, industry and year fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4.9 Investors' Valuation of CSR in Cross-listed Firms

	(1)	(2)
CROSS_LISTING	15.555***	2.289
	(6.842)	(0.417)
LCSR		0.050
		(0.785)
*CROSS_LISTING*LCSR*		0.205**
		(2.540)
SIZE	-20.520***	-21.929***
	(-9.646)	(-9.964)
AGE	-5.771**	-6.179**
	(-1.986)	(-2.122)
SGR	16.503***	17.485***
	(2.616)	(2.826)
ROA	636.048***	633.576***
	(9.896)	(9.969)
LEV	-1.774	-1.152
	(-0.155)	(-0.100)
RDS	246.366***	233.008***
	(4.402)	(4.149)
GLOBAL INDUSTRY Q	48.534***	50.223***
	(3.905)	(4.102)
Constant	251.299***	257.584***
	(8.891)	(9.126)
Country FE	Yes	Yes
Year FE	Yes	Yes
Observations	9,506	9,506
Adjusted R^2	0.478	0.480

This table reports results of regressing market-to-book (*MTB*) on CSR and cross-listing. *MTB* is the ratio of the market value of assets to the book value of assets. *LCSR* is lagged CSR performance. *CROSS-LISTING* is a dummy variable that equals one if a firm is cross-listed in the U.S. in a given year, and zero otherwise. *SIZE* is the logarithm of total assets in millions of $US. *AGE* is the logarithm of the difference between the current fiscal year and the first fiscal year of available accounting data. *SGR* is annual sales growth. *ROA* is the ratio of net income before extraordinary items to total assets. *LEV* is leverage, defined as the ratio of total debt to total assets. *RDS* is the ratio of research and development expenses to total sales. *GLOBAL INDUSTRY Q* is the median market-to-book in each industry group. All financial variables are winsorized at the 1% and 99% levels. All regressions control for country and year fixed effects. Robust t-statistics adjusted for clustering by firm and year are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

CHAPTER 5

OVERALL CONCLUSION

This dissertation investigates corporate governance and CSR in three related essays. The first and second essays examine the CSR performance from the internal corporate governance aspects. Specifically, the first one investigates how family control influences CSR performance. The second one assesses how ownership change in privatized firms impacts CSR performance. The third essay, from external corporate governance aspects, looks at the CSR performance of foreign firms cross-listed in U.S. markets and examines how cross-listing changes the CSR performance. The robust findings of three essays add to the literature of corporate social responsibility and corporate governance.

The first essay in Chapter 2 investigates the impact of family control on CSR performance. A large ownership stake may create agency conflicts between controlling families and minority shareholders if controlling families can use their voting rights to divert firm resources from CSR projects to other projects that benefit themselves. This expropriation view suggests that family firms have lower CSR performance than non-family firms. However, family firms have greater reputation concerns than non-family firms (Dyer and Whetten, 2006; Zellweger et al., 2011), which may lead family firms to invest more in CSR activities. Family firms' longer horizon (Miller and Le Breton-Miller, 2005) may further lead family firms to invest more in CSR to help support long-term relationships with stakeholders. The reputation/long-term horizon view thus suggests that family firms have higher CSR performance than non-family firms.

In this essay, we find support for the expropriation view of family firms. In particular, we find a significantly negative impact of family control on CSR after controlling for firm, industry, and country characteristics. This negative relationship is robust to separately examining the components of our primary CSR measure, as well as to endogeneity tests, sample composition tests, alternative estimation methods, alternative definition of family firms, comparisons with other large shareholders, and comparisons with family firms from other countries. To shed further light on our main finding, we first examine whether the CSR underperformance of family firms is more pronounced in firms with greater agency problems as indicated by proxies for firms' agency costs, ownership structure, and board structure. The results show that family firms underperform on CSR when they have greater agency problems, when monitoring by outside shareholders is less effective, or when monitoring by board members is less efficient. These findings are consistent with the expropriation view and support our main results. Next, we investigate whether country-level institutions affect families' incentives to invest in CSR. We find that family firms are less likely to invest in CSR in countries with low freedom of the press, more political connections, and weaker investor protection. Thus, while family firms have more incentives to augment their reputation through CSR activities, a weak institutional environment may reduce these incentives. Differences in institutional environment might also explain why family firms perform differently on CSR in the U.S. and East Asia.

This essay contributes to the literature on the determinants of CSR, the literature on the impact of family control, and the literature on the impact of country-level institutions. With respect to the first line of research, we highlight the importance of understanding ownership structure when studying the determinants of CSR. We further show that in East

Asia, only the family ownership structure has a significant impact on CSR. With respect to the second line of research, we confirm prior evidence on the expropriation effects of family control in East Asia and suggest that lower CSR performance could be one consequence of expropriation. With respect to the third line of research, we show that country-level institutions may alter controlling families' incentives to invest in CSR.

The second essay, in Chapter 3, investigates the impact of privatization on CSR performance. The privatization setting is interesting in that it allows examining CSR adoption/ change around a change in the objective function of the firm rather than resulting from global or domestic forces as is often done in the literature. In addition, it allows exploiting the particular post divestiture ownership structure to test the link between government ownership, foreign and employee ownership on CSR performance. Using a large sample of 10,502 firm-year observations from 41 countries over the period 2002-2010, we find that CSR is significantly higher for NPFs in comparison to other matching publicly listed firms. This finding is robust to addressing endogeneity through propensity score matching, and confirms our main hypothesis that NPFs either adopt CSR as an investment strategy to increase competitiveness with privately-owned companies, or are coerced to do so by the government that transfers the cost of CSR to private owners. To disentangle these two explanations, we compare partially and fully privatized firms and observe that partially privatized firms have significantly higher CSR performance, which supports the conjecture that CSR activities are likely to be forced upon the firms by the government, for reputation gains and because CSR costs can be transferred to the new owners.

In a second step, we examine the impact of ownership structure and country-level institutions on CSR performance of NPFs. We find that state ownership (alternatively captured by state control or political connections) is negatively associated with CSR performance in NPFs, while foreign ownership and employee ownership are positively associated with CSR performance. Country-level institutions play a moderating role in the relationship between ownership structure and CSR performance. Finally, we investigate the firm-level outcomes of CSR activities in NPFs. We find that CSR performance helps to mitigate the negative impact of state ownership on firm financial performance in NPFs. More specifically, better CSR performance in NPFs with state residual ownership yields higher firm value and lower equity financing costs.

This essay contributes to the privatization literature by examining the social impact of privatization. To our knowledge, this is the first study to assess the social responsibility of NPFs. SOEs do not typically engage in the additional costs of CSR, and therefore the reform could be used to transfer the cost of CSR to private investors. Or, alternatively, CSR awareness becomes part of corporate decision-making of NPFs since they are under private ownership and seek profit and value maximization. We find support for this hypothesis by showing that NPFs have better performance on social dimensions. Also, this essay contributes to the literature on determinants of CSR. Specifically, we link this corporate decision to a macroeconomic policy that is politically driven. We show that CSR is dependent on political will and therefore government support and political institutions are important determinants of CSR activities. Finally, our essay is related to corporate finance literature because it examines the impact of CSR on firm financial performance in NPFs.

We find that better CSR performance helps to mitigate the adverse effect of state ownership on firm performance.

The third essay, in Chapter 4, investigates the impact of cross-listing on firms' corporate social responsibility (CSR) performance. Using 11,594 firm-year observations from 54 economies over the period 2002-2011, this essay studies the dynamics of cross-listing and CSR. Consistent with the positive view of CSR, we find that cross-listing is positively associated with CSR performance. This positive relation holds for ndogeneity, both components of CSR performance, namely, environmental performance and social performance, and for all four ADR program types. To further mitigate the self-selection concern, we look into the change of CSR performance within cross-listed firms and find that CSR increases (decreases) significantly after cross-listing in (delisting from) the U.S. market.

To deepen our analysis, we next examine several factors likely to condition the relation between cross-listing and CSR. We first investigate the effect of home country institutions on the CSR performance of cross-listed firms. We find that the positive impact of cross-listing on CSR performance is larger for firms from countries with weaker institutions. This result is consistent with the bonding theory of cross-listing, holding that firms from countries with weak institutions benefit more from cross-listing in the U.S. (Reese and Weisbach, 2002; Doidge, Karolyi, and Stulz, 2004). We also investigate the effect of cross-listing in venues other than the U.S. and find no significant impact of these cross-listings on CSR performance, suggesting that U.S. markets subject cross-listed firms to a relatively stronger regulatory and monitoring environment (Doidge, Karolyi, and Stulz, 2009). To directly test the litigation risk explanation, we investigate the CSR performance

of cross-listed foreign firms that operate in industries with higher litigation risk. We find that cross-listed firms in high litigation risk industries are more likely to invest in CSR, in line with our argument that cross-listed firms may use CSR to reduce their exposure to litigation risk. Finally, we find that cross-listed firms with better CSR performance are valued more by investors.

This essay contributes to different strands of literatures on cross-listing, CSR, and the impact of country-level institutions. With respect to the first line of research, we provide the first study to our knowledge to assess the social responsibility of cross-listed firms. We find that cross-listed firms have better CSR performance than their peers. We thus add to this line of literature by showing that not only financial performance but also social performance can be improved by cross-listing. With respect to the second line of research, we provide support for the positive view of CSR. We show that improved corporate governance increases CSR performance, and that investors value CSR investments in cross-listed firms. With respect to the third line of research, we show that changes in the institutional environment may also influence firms' CSR performance.

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APPENDIX A –CHAPTER 2 VARIABLE DEFINITIONS AND DATA SOURCES

Variable	Definition	Source
Panel A: CSR Variables		
CSR	The overall CSR performance is equal to the average of environmental performance and social performance.	Authors' calculation based on ASSET4
ENVIRONMENT	The environmental performance measures a company's impact on living and non-living natural systems, including the air, land, and water, as well as complete ecosystems.	ASSET4
SOCIAL	The social performance measures a company's capacity to generate trust and loyalty with its workforce, customers, and society through its use of best management practices.	ASSET4
Panel B: Family Control Variables		
FAM_DUM	A dummy variable equals 1 if the largest shareholder is a family, 0 otherwise.	Authors' calculation based on Carney and Child (2013)
FAM_CONT	The percentage of voting rights shares held by the controlling family.	As above
FAM_MAN	A dummy variable equals 1 if the controlling family is also the CEO, the Board Chairman, or Vice-Chairman, 0 otherwise.	As above
Panel C: Firm-level Controls		
SIZE	The natural logarithm of total assets in millions of $US.	Authors' calculation based on Compustat data
AGE	Fiscal year minus the year of establishment.	Authors' calculation based on Carney and Child (2013)
MTB	The ratio of market value of assets to the book value of assets. The market value of assets is total assets plus market capitalization minus book equity.	Authors' calculation based on Compustat data
LEV	The ratio of total debt to total assets.	As above
ROA	The ratio of net income before extraordinary items to total assets.	As above
RDS	Ratio of research and development expenses to total sales. Missing research and development expenses are set to zero.	As above
Panel D: Other Types of Ownership		
STATE	A dummy variable equals 1 if the largest shareholder is the state or a foreign government.	Authors' calculation based on Carney and Child (2013)
WIDELY_HELD	A dummy variable equals 1 if the largest shareholder is a widely-held company or a widely-held	As above
Panel E: Corporate Governance Variables		

FREE CASH FLOW	(EBITDA-Capital expenditures)/Assets.	Authors' calculation based on Compustat data
CASH HOLDINGS	The ratio of cash to total assets.	As above
MULTIPLE LARGE SHAREHOLDERS	A dummy variable equals 1 if a firm has a second controlling shareholder, 0 otherwise.	Authors' calculation based on Carney and Child (2013)
DISPERSION OF CONTROL	Adjusted Herfindhal index of difference between the voting rights of the five largest shareholders. $1/((Cont1-Cont2)^2+(Cont2-Cont3)^2+(Cont3-Cont4)^2+(Cont4-Cont5)^2)$. The lower the measure, the higher the concentration of control.	As above
BOARD SIZE	Adjusted score of total number of board numbers that are in excess of ten or below eight. Higher	ASSET4
BOARD EXPERTISE	Percentage of board members who have either an industry specific background or a strong financial background.	As above
Panel F: Country-level Institutions		
PRESS FREEDOM	Adjusted score of Freedom House's Freedom of the Press index. Higher score indicates more media independence. The index assesses the degree of print, broadcast, and internet freedom.	Freedom House
POLITICAL CONNECTIONS	Percentage of firms connected with a minister or a member of parliament, or a close relationship.	Faccio (2006)
INVESTOR PROTECTION	An index aggregating three indices: corruption, risk of contract repudiation, and risk of expropriation.	International Country Risk Guide (ICRG)

APPENDIX B –CHAPTER 3 COST OF EQUITY CAPITAL MODELS

Common variables and assumptions

K_{GLS} = implied cost of equity from the Gebhardt, Lee, and Swaminathan (2001) model;

K_{CT} = implied cost of equity from the Claus and Thomas (2001) model;

K_{OJN} = implied cost of equity from the Ohlson and Juettner-Nauroth (2005) model;

K_{MPEG} = implied cost of equity from the Easton (2004) model;

P_t= stock price measured ten months after the fiscal year end;

$FROE_{t+\tau}$= forecasted return on equity for year $t+\tau$;

$FEPS_{t+\tau}$= forecasted earnings for year $t+\tau$;

B_t= current (beginning of period) book value per share;

k_t = expected dividend payout at time *t*;

$B_{t+\tau}$ =forecasted book value per share for year $t+\tau$, measured using the clean surplus relationship; i.e., $B_{t+\tau} = B_{t+\tau-1} + FEPS_{t+\tau}(1-k_{t+\tau})$;

$ae_{t+\tau}$ = forecasted abnormal earnings for year $t+\tau$;

LTG_t = forecasted long-term earnings growth at time *t*; and

i_t = expected perpetual earnings growth at time *t*.

We require firms to have positive one-year-ahead ($FEPS_{t+1}$) and two-year-ahead ($FEPS_{t+2}$) earnings forecasts, and either a three-year-ahead forecast ($FEPS_{t+3}$) or a long-

term growth forecast (LTG_t). If a three-, four-, or five-year-ahead forecast is not available in I/B/E/S, we impute it from the previous year forecast and the long-term growth forecast, i.e., $FEPS_{t+\tau} = FEPS_{t+\tau-1} \cdot (1 + LTG_t)$. Similarly, if the long-term growth forecast is missing, we impute it from the growth rate implied by the three- and two-year-ahead forecasts, i.e., $\mathrm{LTG_t} = \frac{\mathrm{FEPS_{t+3}\text{-}FEPS_{t+2}}}{\mathrm{FEPS_{t+2}}}$.

We estimate the expected dividend payout ($\mathrm{k_t}$) using the average dividend payout over the previous three years. If this ratio is missing or outside [0, 1], we replace it with the country-year median. We estimate the expected perpetual earnings growth (i_t) using next year's realized inflation rate.

Model description

Model 1: Gebhardt, Lee, and Swaminathan (2001)

This model assumes clean surplus accounting, allowing current share price to be expressed in terms of the cost of equity, current book value, and forecasted *ROE* and book values. The explicit forecast horizon is set to three years, beyond which forecasted *ROE* decays to a target *ROE* by the 12th year, and remains constant afterward. The valuation equation is given by:

$$P_t = B_t + \sum_{\tau=1}^{11} \frac{FROE_{t+\tau} - K_{GLS}}{(1 + K_{GLS})^{\tau}} B_{t+\tau-1} + \frac{FROE_{t+12} - K_{GLS}}{K_{GLS} \cdot (1 + K_{GLS})^{11}} B_{t+11} \quad \text{(A.1)}$$

For the first three years, $\mathrm{FROE_{t+\tau}}$ is set equal to $\frac{FEPS_{t+\tau}}{B_{t+\tau-1}}$. Beyond the third year, $\mathrm{FROE_{t+\tau}}$ fades linearly to a target *ROE* by the 12th year. To determine the target *ROE*, we compute, for each firm in each year, the average *ROE* over the previous three years. The

target *ROE* is the country-industry-year median. We define industries according to Campbell's (1996) classification. Negative target *ROEs* are replaced by country-industry medians and, if still negative, by country-year medians.

Model 2: Claus and Thomas (2001)

This model also assumes clean surplus accounting, allowing current share price to be expressed in terms of the cost of equity, current book value, forecasted abnormal earnings, and a perpetual abnormal earnings growth. Forecasted abnormal earnings is forecasted earnings minus a charge for the cost of equity. The explicit forecast horizon is set to five years, beyond which forecasted residual earnings grow at the expected inflation rate. The valuation equation is given by:

$$P_t = B_t + \sum_{\tau=1}^{5} \frac{ae_{t+\tau}}{(1+K_{CT})^{\tau}} + \frac{ae_{t+5}(1+i_t)}{(K_{CT}-i_t)(1+K_{CT})^5} \tag{A.2}$$

where $ae_{t+\tau} = FEPS_{t+\tau} - K_{CT} \cdot B_{t+\tau-1}$.

Model 3: Ohlson and Juettner-Nauroth (2005)

This model is an extension of the Gordon constant growth model. It allows share price to be expressed in terms of the cost of equity, one-year-ahead earnings forecast, and near-term and perpetual growth forecasts. The explicit forecast horizon is set to one year, after which forecasted earnings grow at a near-term rate that decays to a perpetual rate. The near-term earnings growth is the average of: (i) the growth rate of *FEPS* from year *t*+1 to year *t*+2; and (ii) the I/B/E/S long-term growth forecast (*LTG*). The perpetual growth rate is the expected inflation rate. The valuation equation is given by:

$$P_t = \frac{FEPS_{t+1}\left(g_t - i_t + K_{OJN} \cdot k_{t+1}\right)}{K_{OJN}\left(K_{OJN} - i_t\right)} \tag{A.3}$$

where $g_t = \frac{1}{2}\left(\frac{FEPS_{t+2} - FEPS_{t+1}}{FEPS_{t+1}} + LTG_t\right)$.

The model requires that $FEPS_{t+2} > 0$ and $FEPS_{t+1} > 0$ to yield a positive root.

Model 4: Easton (2004)

This model is a generalization of the Price-Earnings-Growth (PEG) model based on Ohlson and Juettner-Nauroth (2005). It allows share price to be expressed in terms of the cost of equity, expected dividend payout, and one-year- and two-year-ahead earnings forecasts. The explicit forecast horizon is set to two years, after which forecasted abnormal earnings grow in perpetuity at a constant rate. The valuation equation is given by:

$$P_t = \frac{FEPS_{t+2} - FEPS_{t+1}(1 - K_{MPEG} \cdot k_{t+1})}{K_{MPEG}^2} \tag{A.4}$$

The model requires that $FEPS_{t+2} \geq FEPS_{t+1} > 0$ to yield a positive root.

APPENDIX C –CHAPTER 3 VARIABLE DEFINITIONS AND DATA SOURCES

Variable	Definition	Source
Panel A: CSR Variables		
CSR	Overall CSR performance. Computed as the average of its environmental performance and social performance scores.	Authors' calculation based on ASSET4 data
EP	Environmental performance score. Captures a company's effect on living and non-living natural systems, including the air, land, and water, as well as complete ecosystems. It reflects how well a company avoids environmental risks and capitalize on environmental opportunities in generating shareholder value.	ASSET4
SP	Social performance score. Captures a company's capacity to generate trust and loyalty with its workforce, customers, and society. It reflects the company's reputation and the health of its license to operate, which are key factors in determining its ability to generate shareholder value.	As above
COMMUNITY	Community component of CSR. Captures managerial commitment towards maintaining a good company reputation within the community (local, national, and global). It reflects a company's capacity to maintain its license to operate by being a good citizen (donations of cash, goods, staff time, etc.), protecting public health (avoidance of industrial accidents, etc.), and respecting business ethics (avoiding bribery and corruption, etc.).	As above
DIVERSITY & OPPORTUNITY	Diversity and opportunity component of CSR. Captures managerial commitment towards maintaining diversity and equal opportunities in its workforce. It reflects a company's capacity to increase workforce loyalty and productivity by promoting life-work balance, a family-friendly environment, and equal opportunities regardless of gender, age, ethnicity, religion, or sexual orientation.	As above
EMPLOYMENT QUALITY	Employment quality component of CSR. Captures managerial commitment towards providing high-quality employment benefits and job conditions. It reflects a company's capacity to increase workforce loyalty and productivity by distributing rewards and fair employment benefits, and by focusing on long-term employment growth and stability by promoting from within, avoiding lay-offs, and maintaining relations with trade unions.	As above
HUMAN RIGHTS	Human rights component of CSR. Captures managerial commitment towards respecting fundamental human rights conventions. It reflects a company's capacity to maintain its license to operate by guaranteeing the freedom of association and excluding child, forced, or compulsory labor.	As above
HEALTH & SAFETY	Health and safety component of SCR. Captures managerial commitment towards providing a healthy and safe workplace. It reflects a company's capacity to increase workforce loyalty and productivity by integrating into its day-to-day operations a concern for the physical and mental health, well-being, and stress level of all employees.	As above

PRODUCT RESPONSIBILITY	Product responsibility component of CSR. Captures managerial commitment towards creating value-added products and services and upholding the customer's safety. It reflects a company's capacity to maintain its license to operate by producing quality goods and services that preserve the customer's health, safety, and privacy and by providing accurate product information and labeling.	As above
TRAINING & DEVELOPMENT	Training and development component of CSR. Captures managerial commitment towards providing developing workforce talent (education). It reflects a company's capacity to increase intellectual capital, workforce loyalty, and productivity by developing employees' skills, competencies, employability, and careers.	As above
Panel B: Privatization and Ownership Variables		
PRIVATIZED	A dummy variable equal to 1 for privatized firms, 0 otherwise.	Firms' annual reports and offering prospectuses
STATE	Percentage of shares held by a government.	As above
CONTROL	A dummy variable equal to 1 for firms in which the state retains control following privatization, 0 otherwise.	As above
FOREIGN	Percentage of shares held by foreign investors.	As above
EMPLOYEES	Percentage of shares held by employees.	As above
CONNECTED	A dummy variable equal to 1 for politically connected firms, 0 otherwise.	Faccio (2006)
Panel C: Firm-level Control Variables		
SIZE	The natural logarithm of total assets in millions of $US.	Authors' calculation based on Compustat data
AGE	Fiscal year minus the year of establishment.	As above
LEV	The ratio of total debt to total assets.	As above
ROA	The ratio of net income before extraordinary items to total assets.	As above
RDS	Ratio of research and development expenses to total sales. Missing research and development expenses are set to zero.	As above
LTG	Average long-term growth forecast reported in June of each year.	Authors' calculation based on I/B/E/S data
DISP	Dispersion of analyst forecasts defined as the coefficient of variation of one-year-ahead analyst forecasts of earnings per share in June of each year.	As above

Panel D: Performance Variables		
MTB	The ratio of the market value of assets to the book value of assets, where the market value of assets is total assets plus market capitalization minus book equity.	Authors' calculation based on Compustat data
COE	Implied cost of equity premium= (K_{GLS}+ K_{CT}+K_{OJN}+K_{MPEG})/4. K_{GLS} follows the Gebhardt et al. (2001) model, K_{CT} follows the Claus and Thomas (2001) model, K_{OJN} follows the Ohlson and Juettner-Nauroth (2005) model, and K_{MPEG} follows the Easton (2004) model.	Authors' calculation based on I/B/E/S and Compustat data
Panel E: Country-level Institutions		
RULE OF LAW	Captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	Worldwide Governance Indicators(WGI)
CORRUPTION	Captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.	As above
COMPETITION	Captures whether competition legislation is efficient in preventing unfair competition.	World Competitiveness Yearbook (WCY)
STOCK MARKET	Captures whether stock markets provide companies adequate financing.	As above
INDIVIDUALISM	Hofstede's index individualism of national culture.	Hofstede (2001)
PRESS	Captures the degree of print, broadcast, and internet freedom. We transform this index such that a higher score indicates more freedom.	Freedom House